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Will Growth Continue at Double Digits?

Overall, growth of contract manufacturing (EMS + ODM) has been on a roll in recent years. Combined annual growth rates for the Top 50 EMS providers were above 15% for the previous four calendar years, while the Top 25 outsourcing providers (EMS + ODM companies) generated composite annual increases of over 21% in the those years, according to *MMI's* data. Can such growth continue?

Sure, it's anyone's guess. But among the folks that are paid to look ahead, there is an emerging view that last year's healthy double-digit growth rate for contract manufacturing is not sustainable over time. Still, such thinking does not necessarily result in a gloomy forecast for this industry. Three market research firms have each projected a generally downward trend in annual growth from their 2007 estimate, yet the compound annual growth rates (CAGRs) that result from their five-year forecasts vary. Indeed, these rates might be characterized as ranging from uninspiring to gratifying (Table 1).

At the disappointing end of the range, **iSuppli** recently through down the gauntlet with a CAGR of 7.2% over the period 2007 to 2012. For 2007, the firm estimates a contract manufacturing market size of \$305.5 billion, representing a growth rate of 15.9% versus the prior year. In this outlook, year-to-year growth will drop to 8.5% in 2008, followed by a further

decline to 7.1% in 2009, a slight increase to 7.5% the following year, then a decline to 6.4% in 2011. Sequential growth will exit the forecast period in 2012 at 6.5%, predicts **iSuppli**, while market size in that year will reach \$432.3 billion (Table 2, p. 2).

To justify this forecast, **iSuppli** cites several factors including the law of large numbers, a slowdown at the largest provider **Hon Hai Precision Industry (Foxconn)**, a shift in emphasis from building market share to improving financials, new OEM procurement strategies and OEM/CM asset transfers. OEM asset divestitures were once a major component of market growth, but large-scale divestitures are now infrequent.

Other firms besides **iSuppli** also see the law of large numbers applying to the contract manufacturing market. This law says that high growth rates become harder to maintain as revenues become large. "I don't think anybody can argue with that logic. It's some-

thing I've been saying for about two years now since I've been covering this space," says **Michael Palma**, senior research analyst for electronics manufacturing services and supply chain at **IDC**. He believes the law will come into play toward the end of the forecast period.

Eventually, the law will catch up with the market's overall numbers, "particularly because they're so sensitive to **Foxconn's** numbers," says **Matt Chanoff**, chief economist at **Technology Forecasters Inc.** He describes **Foxconn** as an 800-pound gorilla that has "defied gravity for a long period." **Chanoff** says, "It's possible they may again this year. We don't know. But it's increasingly unlikely."

TFI's latest forecast won't be ready until the October meeting of its Quar-

Market research firm	CAGR %
Electronic Trend Publications	13.5
IDC	~9.5
iSuppli	7.2

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Table 2: iSuppli's Contract Manufacturing Revenue Forecast (billions US\$)

	2006	2007	2008	2009	2010	2011	2012
Contract manufacturing revenue	\$263.5	\$305.5	\$331.5	\$355.1	\$381.5	\$405.8	\$432.3

Source: iSuppli.

terly Forum, and IDC's numbers were not yet released as of this writing.

IDC's Palma, however, did offer some information about his firm's forecast, which starts with estimated growth of 16.5% for 2007. The firm sees that rate coming down to the high single digits by the end of the forecast period in 2012. IDC's CAGR for the period is about 9.5%, somewhat more encouraging than iSuppli's forecasted rate.

Palma says the declining annual rates are partially the result of the law of large numbers and the maturity of the contract manufacturing industry. Another factor is the broader IT-electronics industry, which it is safe to assume is growing at mid single digits, according to Palma. "So naturally, the EMS [contract manufacturing] industry, as it penetrates more of the market,

is going to start reflecting what's happening in the end market."

IDC estimates that the industry's penetration of client and consumer product segments will increase from 53% in 2007 to 72% in 2011. The penetration rate in enterprise and infrastructure product segments will go from a projected 38% in 2007 to 44% in 2011. IDC also predicts that the industry's share of emerging product segments will rise from 11% in 2007 to 16% in 2011.

The forecast just published by **Electronic Trend Publications** also calls for a decline in year-to-year growth rates for the contract manufacturing market but not until after 2008. ETP expects this year's growth to match last year's estimated 17.3% rate. (See also next article.) While ETP predicts that annual growth rates

will decrease over the remainder of the forecast period, they will still remain in double digits throughout the period. Randall Sherman, the analyst responsible for ETP's forecast, says the industry is "losing the inertia that it had." Nevertheless, ETP's five-year CAGR is 13.5%, the highest of the three forecasted rates presented here.

ETP's CAGR reflects a forecasting approach derived from the industry's history. Sherman believes that the contract manufacturing market "will continue to capture market share, and it will continue to grow at least double the rate of the OEM market, which it has done for years and years. Every time I slow it down too much, that year comes in higher." He says he can justify this relatively high CAGR by looking at two high-growth segments, computer products and cell phones.

Three market research firms are predicting a slowdown in the industry growth rates over the forecast period. Key differences among their forecasts arise in how far and how fast rates will decline.

ETP Sees Growth Holding Up

Electronic Trend Publications remains upbeat about the growth prospects for the contract manufacturing market consisting of the EMS and ODM sectors. ETP's latest report on this outsourcing market projects that the market will grow from \$261.3 billion in 2007 to \$492.8 billion in 2012, corresponding to a compound annual growth rate (CAGR) of 13.5% (see Table 1).

The report submits that the market's solid 2007 growth was still more than double the rate of the overall electronic industry, which indicates that the trend toward outsourcing is still very strong. What's more, the study finds that the contract manufacturing business made substantially more money in 2007 than in any previ-

ous year, continuing the trend of the last few years.

Despite the macroeconomic headwinds of the current year, ETP is predicting another year of healthy growth for the contract manufacturing market. Although the firm expects that growth of the overall electronics assembly market will slow to 4.9% in 2008, the ETP outlook for this year has the contract manufacturing business growing at 17.3% to \$306.6 billion.

Still, the report foresees that annual growth rates will come down after 2008, dwindling in each successive

year. By 2012, annual growth of the contract manufacturing market will have slid to 10.4%, the report predicts.

ETP's five-year forecast has the total assembly market, comprised of both outsourced and in-house manufacturing, growing at a CAGR of 7.8%. In 2012, the total market will reach \$1.40 trillion, up from \$958.7 billion in 2007, according to the forecast (Table 1).

Based on the forecast data, outsourcing achieved 27.3% penetration of the total assembly market in 2007. In five years, the penetration rate will

Table 1: ETP's Contract Manufacturing Market Forecast, 2007-2012 (billions US\$)

	2007	2008	2009	2010	2011	2012	CAGR %*
Contract manufacturing market**	\$261.3	\$306.6	\$350.5	\$397.1	\$446.2	\$492.8	13.5
Total assembly market	\$958.7	\$1,005.7	\$1,092.9	\$1,185.9	\$1,289.2	\$1,395.9	7.8
Penetration %*	27.3	30.5	32.1	33.5	34.6	35.3	

Source: Electronic Trend Publications. *Supplied by MMI. **EMS+ODM.

Table 2: Contract Manufacturing Market Forecast by Segment (% of total market)

Segment	2007	2012
Automotive	2	2
Communications	30	33
Computer	36	36
Consumer	17	17
Industrial	7	5
Medical	5	4
Commercial aviation	1	1
Defense/other	2	2

Source: ETP

rise by eight percentage points to a predicted value of 35.3%, which should allow for still more outsourcing.

ETP believes that the communications segment of this outsourcing market will experience the strongest growth rate over the next five years. However, the firm foresees that all segments will see substantial growth.

According to the report, the communications segment will gain market share over the forecast period as its

share will increase to 33% of the contract manufacturing market in 2012 from 30% in 2007. In this forecast, the computer segment will remain the market's largest source of business with a 36% share at both ends of the forecast period. The consumer segment's share of 17% will also hold steady. Interestingly, ETP predicts that both the industrial and medical segments will lose market share from 2007 to 2012 (Table 2).

The study finds that the shift in production from high- to low-cost regions is starting to wane, as labor cost advantages are declining when weighed against the total delivered cost including transportation and logistical challenges. Although migration will still take place, it will be at a more moderate pace. ETP projects that Asia's share of the contract manufacturing business will continue to increase over the forecast period, ending up at 72% in 2012. Asia's gain will mostly come

Table 3: Contract Manufacturing Market Forecast by Region (% of total market)

Year	N. America	Europe	Asia	Rest of World
2007	20	16	60	4
2012	13	12	72	3

Source: Electronic Trend Publications

at the expense of North America and Europe, whose shares of the market will drop to 13% and 12% respectively in 2012 (Table 3).

ETP's report also rates the performance of EMS providers and ODMs based on a weighting of certain financial measures. In 2007, **Hon Hai** (Foxconn), the world's largest EMS provider, earned the highest performance rating. The company moved up from third place in 2006. **Nam Tai Electronics** took second in the 2007 standings, after scoring fifth the year before.

The new report is entitled *The Worldwide Electronics Manufacturing Services Market, Fifth Edition*. For more information, email saberry@electronictrendpubs.com.

Market Data

Reported Results Don't Tell Whole First-Half Story

Add up the first-half 2008 results for the seven-largest U.S.-traded providers, and you'll find that aggregate sales for this group increased 25.8% year over year (Table 1). Not too shabby for a period buffeted by the financial troubles of the U.S. economy. But

a single company, **Flextronics**, was largely responsible for this growth. Strip out Flextronics' results, and the remaining six companies posted a combined increase of 2.1% in the first half. And three out of six reported year-over-year sales declines for the period.

At 50% of group sales for the first half, Flextronics has the weight to skew results. Combine this weight with the company's 64.0% first-half growth

rate, and the outcome is a healthy double-digit increase for the group. However, Flextronics' scintillating first-half growth was made possible by its acquisition of **Solectron**, whose sales are not counted in Flextronics' revenue for the first half of 2007. That's because the acquisition closed on Oct. 1, 2007. Therefore, the group results in Table 1 do not account for Solectron's sales in the first half of 2007. Omitting Solectron's revenue

Table 1: Q2 and Six-Month 2008 GAAP Results for Seven Large EMS Providers, US Traded (M\$ or %)

Company (in order of 6-mo. sales)	Q2 '08 sales	Q1 '08 sales	Qtr.- qtr. chg.	Q2 '07 sales	Yr.-yr. chg.	Q2 '08 gross marg.	Q2 '07 gross marg.	Q2 '08 oper. marg.	Q2 '07 oper. marg.	Q2 '08 net inc.	Q1 '08 net inc.	Q2 '07 net inc.	Q1-2 '08 sales	Q1-2 '07 sales	Yr.-yr. chg.	Q1-2 '08 net inc.	Q1-2 '07 net inc.
Flextronics	8,350.2	7,775.4	7.4	5,157.0	61.9	5.5	5.4	2.2*	2.3*	130.3	(92.8)	106.9	16,125.6	9,833.8	64.0	37.5	227.6
Jabil	3,088.3	3,058.6	1.0	3,001.9	2.9	6.8	7.3	2.0	1.1	38.4	(24.0)	6.2	6,146.9	5,936.8	3.5	14.4	20.1
Sanmina-SCI**	1,903.3	1,817.4	4.7	1,673.3	13.7	7.3	5.7	2.1	-0.3	15.3	(24.4)	(27.6)	3,720.7	3,461.3	7.5	(9.1)	(53.7)
Celestica	1,876.3	1,835.7	2.2	1,937.0	-3.1	6.7	4.7	2.5	0.8	39.8	29.8	(19.2)	3,712.0	3,779.3	-1.8	69.6	(53.5)
Benchmark	682.4	684.3	-0.3	756.3	-9.8	6.7	7.2	3.4	3.6	22.4	22.6	25.9	1,366.7	1,508.8	-9.4	45.1	50.5
Plexus	456.4	451.0	1.2	379.6	20.2	10.7	10.1	4.9	4.8	17.4	22.1	15.5	907.4	739.8	22.7	39.5	25.7
Nam Tai	146.2	147.1	-0.6	197.8	-26.1	14.2	11.5	5.9	6.0	11.8	28.4	38.8	293.3	389.4	-24.7	40.2	47.2
Total/avg.	16,503.1	15,769.5	4.7	13,102.9	25.9	6.3	6.1	2.3	1.7	275.4	(38.3)	146.5	32,272.6	25,649.2	25.8	237.2	263.9

*Intangible amortization was subtracted from reported operating income. **Company's net income includes discontinued operations of PC business.

Table 2: Rough Estimate of Six-Month Growth Adjusting for Solectron Sales in 2007

Company (in order of 6-mo. sales)	Q1-2 '08 sales	Q1-2 '07 sales	Yr.-yr. chg.
Flextronics + Solectron	16,125.6	~15,720*	~2.6
Jabil	6,146.9	5,936.8	3.5
Sanmina-SCI	3,720.7	3,461.3	7.5
Celestica	3,712.0	3,779.3	-1.8
Benchmark	1,366.7	1,508.8	-9.4
Plexus	907.4	739.8	22.7
Nam Tai	293.3	389.4	-24.7
Total/avg.	32,272.6	~31,535	~2.3

* Estimate combines Flextronics' sales for the quarters ended March 31 and June 29, 2007 with Solectron's sales for the quarters ended March 2 and June 1, 2007.

for the first six months of 2007 does not allow for a true apples-to-apples comparison of EMS business in the first half of 2008 with that in the year-earlier period.

Unfortunately, there is no precise way to add in Solectron's revenue for the first half of 2007. Solectron's quarters ended one month before Flextronics'; quarterly revenue for the two companies did not correspond to the same three months. Still, it is possible to come up with an estimate that would roughly account for Solectron's revenue in the first half of 2007. *MMI* combined Solectron's sales for the quarters ended March 2 and June 1, 2007 with Flextronics' sales for the quarters ended March 31 and June 29, 2007. The result is \$15.72 billion (\$5.89 billion plus \$9.83 billion), which can be used as a rough approximation of the two companies' sales in the first half of 2007. Plug this com-

bined number into group results, and the group's first-half growth rate drops to about 2.3% (Table 2). Although this is not an exact figure, it does show that first-half business in this U.S.-traded group increased by single digits when Solectron's first-half 2007 sales are factored in. A conservative view would say that actual growth was likely less than 5%.

While this actual growth is a come-down from what was derived from first-half GAAP results, these providers made goods strides overall in profitability for the second quarter. Combined operating margin (GAAP) in Q2 stood at 2.3%, up 60 basis points year over year (Table 1, p. 3). For every single provider, operating margin came in at 2.0% or better. (*MMI* defines GAAP operating margin as including amortization of intangibles, which Flextronics leaves out of operating income.) The group's operating income of \$382.9 million for Q2 grew by 75.7% from a year earlier. Net income for the seven providers totaled \$275.4 million, representing an 88% increase year over year. All seven companies recorded positive net income, which was not the case in the prior or year-earlier quarters.

Together, the seven providers produced a Q2 gross margin of 6.3%, which improved by 20 basis points from the year-ago quarter. Both **Nam Tai Electronics** and **Plexus** recorded double-digit gross margins. Five out of seven providers raised their Q2 gross margin from a year earlier (Table 1).

The group's Q2 revenue showed a healthy sequential increase of 4.7%.

Table 3: Inventory for Seven Large EMS Providers

Company (in order of 6-mo. sales)	Q2 '08 inven- tory	Q1 '08 inven- tory	Change
Flextronics	4,456.1	4,118.6	8.2
Jabil	1,511.6	1,482.5	2.0
Sanmina-SCI	901.0	949.9	-5.1
Celestica	812.0	805.9	0.8
Benchmark	393.0	397.2	-1.1
Plexus	342.3	313.0	9.4
Nam Tai	22.3	28.5	-21.8
Total/avg.	8,438.3	8,095.6	4.2

All but two companies grew their sales from the prior quarter. On a year-over-year basis, not only Flextronics but also Plexus and **Sanmina-SCI** posted double-digit gains in Q2 sales. Three providers – **Celestica**, **Benchmark Electronics** and **Nam Tai** – experienced year-over-year sales declines in both Q2 and the first half.

For the first half, the group of seven collectively earned \$237.2 million of net income on revenue of \$32.27 billion. That's a net margin of 0.7%, not much to show for all the work done by these companies. Net income decreased 10.1% from a year earlier, having absorbed a \$190.1-million decline in Flextronics' net income (Table 1). **Sanmina-SCI**, **Celestica** and **Plexus** recorded increases in first-half net income versus a year earlier.

MMI also looked at changes in inventory levels this year from Q1 to Q2. At the end of Q2, group inventory amounted to \$8.44 billion, up 4.2% from Q1 (Table 3). This increase is not a concern if a large part of it resulted from material prepositioned for Q3 builds. But if overall inventory rises

Table 4: Q2 and Six-Month 2008 GAAP Results for Four Smaller EMS Providers, US Traded (M\$ or %)

Company (in order of 6-mo. sales)	Q2 '08 sales	Q1 '08 sales	Qtr.- qtr. chg.	Q2 '07 sales	Yr.-yr. chg.	Q2 '08 gross marg.	Q2 '07 gross marg.	Q2 '08 oper. marg.	Q2 '07 oper. marg.	Q2 '08 net inc.	Q1 '08 net inc.	Q2 '07 net inc.	Q1-2 '08 sales	Q1-2 '07 sales	Yr.-yr. chg.	Q1-2 '08 net inc.	Q1-2 '07 net inc.
LaBarge	77.8	75.4	3.2	64.9	19.9	19.5	18.0	10.0	7.6	4.6	4.3	2.9	153.2	124.5	23.1	8.9	5.7
SMTC	66.3	55.1	20.3	66.1	0.3	6.8	8.8	-8.3	2.6	(6.3)	0.4	0.1	121.4	135.6	-10.5	(5.9)	2.9
Key Tronic	57.3	51.5	11.3	49.2	16.5	10.5	9.1	5.1	6.5	2.6	1.2	2.7	108.8	96.4	12.9	3.8	3.4
Nortech	32.0	31.2	2.6	31.1	2.9	14.1	13.8	3.4	2.7	0.6	0.6	0.4	63.2	59.1	6.9	1.2	0.7
Total/avg.	233.4	213.2	9.5	211.3	10.5	12.9	12.4	2.7	5.0	1.5	6.5	6.1	446.6	415.6	7.5	8.0	12.7

again in Q3, then the red flags will start waving.

In addition, Q2 and six-month results are presented here for four smaller EMS providers that are also U.S.-traded (Table 4, p. 4). In the aggregate, year-over-year growth for these providers amounted to 10.5% and 7.5% for Q2 and the first six months respectively. Combined GAAP gross margin was 12.9% in Q2, while GAAP operating margin stood at 2.7%.

Nine-month estimate: what it does and does not show

MMI's estimate of nine-month sales for the six largest U.S.-traded providers shows combined sales growth of 26.0% (Table 5). But as previously discussed, this estimate does not include last year's nine-month sales for

Solectron, now a part of Flextronics, since the Solectron acquisition did not close until Oct. 1, 2007. Adding in an estimate for Solectron's nine-month revenue for 2007 will significantly lower the projected nine-month growth rate for the business represented by these six companies.

Again, there is no accurate way of accounting for Solectron's 2007 sales. Not only was there a mismatch in the quarters of Solectron and Flextronics, but Solectron never reported results for the August 2007 quarter. Still, *MMI* has taken a stab at estimating Solectron's 2007 revenue to illustrate the effect on projected growth. In this exercise, assume that the company's sales for the August 2007 quarter equaled its sales for the previous quarter, \$2.99 billion. Then combine this

\$2.99-billion estimate for the August quarter with \$5.89 billion reported for the prior two quarters, and you get \$8.87 billion for the nine months from December 2006 to August 2007. Further assume that this number roughly approximates Solectron's sales for the first nine months of 2007. Add Solectron's estimated nine-month sales of \$8.87 billion to Flextronics' reported sales of \$15.39 billion for the period, and you obtain a nine-month total of roughly \$24.26 billion for the two companies in 2007. Now insert this combined estimate for the two companies in place of the Flextronics-only number for the nine months of 2007, and the nine-month growth estimate for the six U.S.-traded providers falls to 2.6% (Table 6).

When GAAP results are tallied for the first nine months of 2008, *MMI* expects that overall growth will look healthy for this U.S.-traded group, thanks to Flextronics' growth, projected at over 60% (Table 5). But when Solectron's 2007 sales are factored in, a different, more sobering picture emerges of a year that is not producing much growth for the sector comprised of the six U.S.-traded providers.

Besides Flextronics, the only other company estimated to achieve double-digit growth for the first nine months is Plexus. Both Celestica and Benchmark will see sales declines in the period, if *MMI's* estimates are borne out (Table 5). To obtain nine-month sales estimates for 2008, *MMI* added first-half sales for each provider and the midpoint of its Q3 guidance.

Another way to approach a nine-month outlook for the sector is to look at growth without the weight of Flextronics' contribution. Excluding Flextronics, the aggregate growth estimate for the other five companies becomes

Table 5: Q3 Guidance and Nine-Month 2008 Revenue Estimates for Six Large U.S.-Traded Providers (sales in B\$ except as noted)

Company	Q1-2 '08 sales	Q3 guidance	Q3 midpoint	Q1-3 '08 estimated sales	Q1-3 '07 sales	% estimated growth	Q2 EPS Non-GAAP* \$	Q3 Guidance Non-GAAP* \$
Flextronics	16.13	8.5 - 9.0	8.75	24.88	15.39	61.7	0.27	0.28 - 0.31
Jabil	6.15	3.2 - 3.3	3.25	9.40	9.07	3.6	0.26	0.29 - 0.33
Sanmina-SCI	3.72	1.8 - 1.9	1.85	5.57	~5.21	6.9	0.05**	0.05 - 0.07**
Celestica	3.71	1.9 - 2.1	2.0	5.71	5.86	-2.6	0.17	0.17 - 0.23
Benchmark	1.37	650 - 690 M	670 M	2.04	2.18	-6.4	0.35	0.32 - 0.37
Plexus	907 M	470 - 490 M	480 M	1.39	1.17	18.8	0.41	0.42 - 0.46
Total				48.99	38.88	26.0		

Nine-month 2008 estimates equal six-month sales plus midpoint of Q3 guidance.
*Non-GAAP EPS may not be comparable from company to company. **For continuing operations.

Table 6: Nine-Month 2008 Revenue Estimates for Six Large U.S.-Traded Providers, Adjusting for Solectron's 2007 sales (sales in B\$ except as noted)

Company	Q1-2 '08 sales	Q3 guidance	Q3 midpoint	Q1-3 '08 estimated sales	Q1-3 '07 sales	% estimated growth
Flextronics + Solectron	16.13	8.5 - 9.0	8.75	24.88	~24.26*	2.6
Jabil	6.15	3.2 - 3.3	3.25	9.40	9.07	3.6
Sanmina-SCI	3.72	1.8 - 1.9	1.85	5.57	~5.21	6.9
Celestica	3.71	1.9 - 2.1	2.0	5.71	5.86	-2.6
Benchmark	1.37	650 - 690 M	670 M	2.04	2.18	-6.4
Plexus	907 M	470 - 490 M	480 M	1.39	1.17	18.8
Total				48.99	~47.75	2.6

Nine-month 2008 estimates equal six-month sales plus midpoint of Q3 guidance.
* Includes an estimate for Solectron's Q1-3 '07 sales.
See article text for an explanation of this estimate.

2.6% for the first nine months of 2008. This rate equals the Solectron-adjusted estimate for the entire group in this period. That the growth rates happen to match is not as significant as the finding that nine-month growth in this U.S.-traded sector is projected to be low with or without the adjusted sales of the Flextronics-Solectron combination.

However, this outlook is not entirely disappointing. Estimated Q3 sales of \$17.0 billion for the six providers (based on the midpoint of their sales guidance) are 3.9% above actual Q2

sales for the group. At least, momentum appears to be positive going into the second half of the year.

MMI also tabulated companies' Q3 guidance for non-GAAP EPS. Guidance provided by Flextronics, **Jabil Circuit** and Plexus implies that all three companies expect to achieve sequential improvement in non-GAAP EPS for Q3 (Table 5, p. 5). Celestica's Q3 outlook calls for non-GAAP EPS to remain flat or increase versus the Q2 level, while Sanmina-SCI has the same expectation for its continuing operations.

a regional logistics hub for the group, according to two Asian news sources.

Flextronics Said To Have Purchased Power Supply Firm

Flextronics (Singapore) acquired **ColdWatt**, a maker of high-efficiency power supplies for markets such as servers, storage and networking, according to the online version of *The Austin American-Statesman*. Although the newspaper reported that Flextronics confirmed the acquisition, MMI was unable to verify that the deal had taken place.

ColdWatt had been listed as being based in Austin, TX, but the Texas newspaper reported that the company has shut down its Austin location and combined engineering operations in Plano, TX. Engineering also takes place in China, the newspaper said.

Jabil Selling Optical Assets

Jabil Circuit (St. Petersburg, FL) has agreed to sell assets associated with its optical module business for the projector industry to **Young Optics** (Hsinchu, Taiwan). The sale was to become effective July 30, 2008, pending approval of government authorities. Financial details were not disclosed.

"Jabil will partner with Young Optics to meet the needs of its customers with optical module manufacturing requirements," stated Albrecht Richter, managing director of **Sypro Optics**. Located in Jena, Germany, Sypro is a wholly owned subsidiary of Jabil and its optics design center. "Jabil will focus on our customers' requirements for highly integrated product solutions in the mobile projection and industrial/digital signage segments and rely on Young Optics as a provider of projection optics," said Richter.

News

Foxconn Expanding in Mexico in a Big Way

Hon Hai Precision Industry (Tucheng City, Taiwan), also known by its **Foxconn** trade name, has broken ground in Jeronimo, Mexico, on the U.S. border for a manufacturing complex that could become Mexico's largest maquiladora. Located in Mexico's Chihuahua state, the site is adjacent to Santa Teresa, NM. Here is yet more evidence of the growing trend in regional manufacturing (July, p. 8).

According to a statement from the office of the governor of New Mexico, staffing at the Foxconn facility will reach over 30,000 people in the next four years, while the *Albuquerque Journal* reported that the site's work force will total 20,000 upon completion of the facility in three to four years. The governor's office stated that the complex will initially employ as many as 9,000 workers when it opens by late February 2009. According to the *Journal*, opening of the first stage of this project is due in March with 9,300 workers. The first stage will be a 1.3-million-ft² plant, for which Foxconn will spend \$185 million, the *Journal* reported.

The Foxconn facility will produce

computers, laptops and servers, said the governor's office.

But Hon Hai is not finished investing in China. For example, the company recently announced a series of investments totaling \$205.4 million exclusively in component-level manufacturing operations in China. These investments cover the production of connectors, cable products, chassis (most if not all in the computer category), metal stamping parts, and computer components. Also, Hon Hai funneled \$30 million through its **Foxconn International Holdings** handset subsidiary into a Beijing-based company for the manufacture of handsets and related components and put \$8 million into a Shenzhen-based software firm.

Plans major investment in Taiwan

This month, Hon Hai's chairman, Terry Gou, revealed a large-scale investment plan for Taiwan. According to published reports, the NT\$100-billion (\$3.18 billion) plan involves building a high-tech city for 240,000 people. The project will also create 30,000 jobs within the Hon Hai group, and the city will serve as a global R&D headquarters for the group, *The Taipei Times* reported.

Hon Hai is also planning to make the southern Taiwan port of Kaohsiung

As part of this agreement, Young Optics will gain a license for the Field Lens architecture used in certain optical modules, a patented technology owned by Sypro.

Sypro began in 2006 as a joint venture of Jabil and **Carl Zeiss**.

New business... Flextronics' computing business has provided ODM services for the **Fujitsu HX600** high-performance computing (HPC) server, now in service at Kyoto University in an HPC cluster-based system. According to Flextronics, this relationship broadens its HPC and server capabilities and further establishes Flextronics' ODM presence in Japan....**Parata Systems** (Durham, NC) has awarded **Sanmina-SCI** (San Jose, CA) a contract for production of two new pharmacy automation systems....**Universal Scientific Industrial** (Nantou, Taiwan), a Top 50 EMS provider, is one of two companies that are building 802.11n-based wireless modules for **Intel**, reported *Digitimes*, which cited sources in Taiwan....Under a new multiyear agreement with **Raytheon Missile Systems, LaBarge** (St. Louis, MO) will provide complex interconnect harnesses for the new Miniature Air Launch Decoy program. The company anticipates that the value of this contract will be about \$9.7 million through September 2011. Also, LaBarge has landed a \$3.2-million contract from **Bell Helicopter** to continue to produce electronic assemblies for a program designed to upgrade U.S. Marine Corps helicopters. A third contract, worth \$1.1 million, comes from **Northrop Grumman**, to whom LaBarge is supplying electronic assemblies used in a new radar system that consolidates the missions of five Marine Corps radars into oneThe Systems Engineering Division of **Calian Technologies** (Kanata, Ontario, Canada), has received a contract from **DRS Sustainment Systems** to manufacture aerial head assemblies for DRS's

Manportable Surveillance and Target Acquisition Radar, intended for perimeter security and surveillance. The contract is valued at \$11.7 million.

More capacity... Flextronics has entered into an agreement to set up a production facility in Suzhou, China, according to China's *Xinhua News Agency*. The provider will reportedly spend a total of \$300 million on the site, which will combine parts and product manufacturing. The latter will include computers, navigation devices and medical products, *Xinhua* reported....EMS provider **I. Technical Services** has expanded its repair depot at its new facility in Alpharetta, GA. The company has added space and capabilities....**SVI**, an EMS company publicly traded in Thailand, expects to invest up to 750 million baht (\$22 million) for a third plant at its Bang Kadi site in the country's Pathum Thani province, the *Bangkok Post* reported. The new plant is reportedly slated to begin production in Q1 2009.

FIH's Profit Drops

Hong Kong-listed Foxconn International Holdings, the handset subsidiary of Hon Hai Precision Industry, reported first-half net profit of \$142.8 million, down 56% from the year-earlier period. Sales for the first six months rose 4.3% year-on-year to \$4.79 billion.

Earlier this month, FIH warned that its net profit for the first half of 2008 was expected to show a significant decline from the year-earlier period. FIH attributed the decline primarily to a change in product mix, rising operational costs, increased long-term investment in R&D activities and the company's production facilities, as well as higher income tax expenses.

Other financial news... Thailand-based **Cal-Comp Electronics** reported first-half sales of 49.88 billion baht

(about \$1.47 billion at today's exchange rates), up 21.5% year over year. Net income amounted to 1.24 billion baht (about \$36.6 million), down 6.7% from the first half of 2007.

People on the move... Jukka Jäämaa, COO and deputy CEO at **Elcoteq** (Luxembourg), will leave the company next month. In a statement, the company said he will pursue his career outside Elcoteq. His COO responsibilities will be folded into the existing sourcing and supply chain organization. Elcoteq's operations organization will be streamlined to simplify its structure and to further improve accountability. ...**Plexus** (Neenah, WI) has increased the size of its board to nine directors and has elected Mary Winston to fill the new seat. She serves as president and founder of **WinsCo Financial**, a financial and strategic consulting firm.

Facility closures... Plexus intends to close its Ayer, MA, manufacturing facility by March 2009. This decision was reached after the company evaluated the long-term viability of each of its U.S. manufacturing locations. About 170 employees from the 65,000-ft² facility will lose their jobs....EMS provider **Neo EMS**, a division of **Titan Global Holdings** (Richardson, TX), has closed its Brandon, VT, operation, according to local media. Neo EMS's remaining facility is located in Woburn, MA.

Medical certifications... Two sites in China were recently qualified to ISO 13485:2003 for the manufacture of medical devices. One is the Dongguan manufacturing facility of **Stadium Electronics** (Hartlepool, UK), and the other is the Suzhou site of **TT electronics integrated manufacturing services** (Newport, Wales, UK). In the U.S., **Nortech Systems** (Wayzata, MN) has achieved ISO 13485 certification for its EMS facilities in Merrifield and Baxter, MN.

Conservation: Not To Be Taken Lightly

There is a case to be made for energy conservation as the next big thing. Problem is, energy conservation is not product per se. It's not something that EMS companies can neatly pigeonhole into one of their market-segment businesses. Just because conservation cannot be rendered into a single, easily pursued technology, it does not follow that conservation should be taken lightly by the EMS world.

Here's why. Energy conservation is the least expensive way to address two of the world's biggest problems: global warming and fossil-fuel dependency. Alternative energy technologies also attack these problems, and their growth potential presents an EMS opportunity, as was reported here last month. But conservation is a cheaper way to reduce carbon emission and fossil fuel consumption. Solar, wind, fuel cells, geothermal, hydro – you name it – all cost more. That's because it takes capital and lots of it to create electric generating capacity, whatever the source. In contrast, relatively modest spending on conservation results in reduced demand, thereby freeing up capacity for other uses. Ergo, conservation is a way to create capacity without spending the big bucks on energy infrastructure. The power (no pun intended) of this concept

cannot be understated.

Conservation also has another thing going for it. It takes effect immediately, as opposed to alternative energy technologies, whose development and commercialization can go on for years.

Of course, conservation is not a new idea. It was front and center during the energy crisis of the 1970s but went out of fashion after the crisis passed. *MMI* submits that conservation is back to stay because unlike the 1970s oil prices will remain high. Furthermore, global warming was virtually unknown as a phenomenon in the 1970s.

More and more, companies and consumers will look to save energy wherever it's consumed. Applications of energy conservation are as broad as the uses of energy. Grasping the entirety of this trend is not a straightforward exercise in cookbook market strategy. *MMI* believes that most EMS companies are not seeing the whole conservation picture because of the way they organize by market segments.

Still, to understand how broadly conservation will affect the EMS business, it is useful to point out some of the areas where the trend will have an impact. Conservation will be a major driver in white goods design, electronic hardware design, HVAC controls, building energy management systems, LED and other lighting, electricity grid metering and control, machine design and control,

motors, automotive electronics and power supplies. An example of the latter is the high-efficiency power conversion offering of **ColdWatt**, which reportedly was acquired by **Flextronics** (see p. 6). New applications will also emerge; home energy management is one possibility.

Conservation is not a killer app that will immediately inject new growth into the EMS business. But over time, its impact will be significant in a number of product areas that the EMS industry serves.

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