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Top 50 Combine for Another Double-Digit Year

If, as the saying goes, all good things must come to an end, that was not the case in 2007. For the fourth straight year, the *MMI* Top 50 EMS providers together generated annual growth above 15%. Aggregate growth for the Top 50 providers in 2007 amounted to a healthy 16.7% on sales of \$141.3 billion.

Last year's growth fell 1.9 percentage points shy of the 2006 Top 50 growth rate of 18.6% (as updated), but was ahead of the 15.3% result achieved in 2005 (Chart 1).

The large providers making up the Top 50 now account for the bulk of EMS industry sales. Based on an average estimate of \$177.0 billion for EMS industry sales in 2007 (Dec. 2007, p. 2), the Top 50 represented about 80% of industry revenue last year.

Every year, *MMI* surveys the industry to find the 50 largest EMS providers by calendar year sales. It took a minimum of \$229 million in sales to make the 2007 edition of the Top 50. Qualifying for the Top 50 continues to be more demanding. The cutoff point went up by \$16 million for 2007, the latest in a series of increases since 2001 (Chart 2, p. 4).

Top 50 EMS providers were ranked based on calendar 2007 sales in U.S. dollars. See the tables on pages 2-4. Where possible, sales of non-EMS businesses were excluded. Nine participants in the Top 50 survey did not

make the cutoff. They appear in a table on page 5.

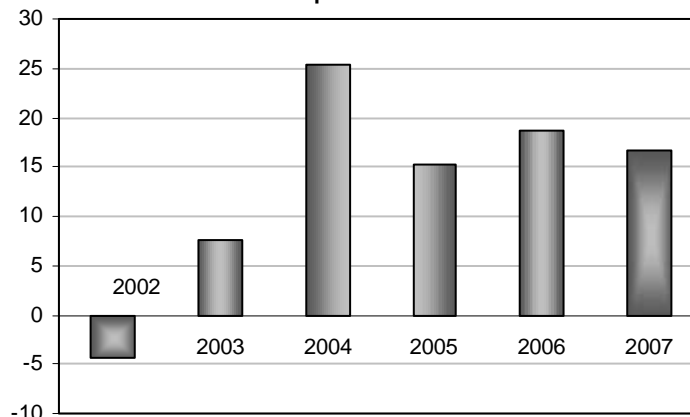
For ranking purposes, sales reported in currencies other than the U.S. dollar were converted into U.S. dollars by using an average exchange rate for 2007. The default rate was that published by the U.S. Federal Reserve. *MMI* believes that this is the most accurate way of determining the U.S.-dollar value of a provider's sales when given in other currencies. Since sales

are accumulated throughout the year, it only makes sense to use an exchange rate that reflects the entire year. This method also applies to the prior year's sales, which were changed into dollars by using an average 2006 rate. Because this was the same procedure used to calculate the 2006 Top 50 order, 2006 sales listed last year were consistent with the 2006 figures from the current survey.

The Top 50 method wins on ranking accuracy and consistency,

but it does inflate growth rates when the U.S. dollar continues to lose value against other currencies. For example, Top 50 growth rates for euro-based pro-
continued on p. 4

Chart 1: Top 50 Growth Rates



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MMI Top 50

The MMI Top 50 EMS Providers in 2007

Organization	Head-quarters	Sales calendar 2007 (millions)	Rank by 2007 sales	Sales calendar 2006 (millions)	Rank by 2006 sales	Sales Growth '06-'07 in US\$ (%)	No. of people	No. of plants	Total facility sq. ft.	Percent low-cost regions	No. SMT lines	No. of customers/ notable customers
Hon Hai Precision Industry (Foxconn)	Tucheng City, Taiwan	\$52,180 (estimated)	1	\$41,850 (estimated)	1	25	>450,000 (estimated)	not avail.	not avail.	not avail.	not avail.	Dell, Apple, HP, Motorola, Nokia, Cisco, Sony Ericsson
Flextronics	Singapore	\$24,460	2	\$17,708	2	38	~200,000	not avail.	~24 M	>75 (capacity) as of 3/07	not avail.	Casio, Cisco, Dell, Ericsson, HP, Kodak, Kyocera, Microsoft, Motorola, Nortel, Sony Ericsson, Xerox
Jabil Circuit	St. Petersburg, FL	\$12,435 (12/06 to 11/07)	3	\$11,085	4	12	61,000*	48*	19.45 M*	~72*	not avail.	>100: Cisco, Nokia, Philips, HP, Nokia Siemens Networks
Sanmina-SCI	San Jose, CA	\$10,138	4	\$10,872	5	-7	52,607**	63**	12.9 M**	43**	not avail.	IBM, Lenovo, HP, EchoStar, Nortel, Powerwave
Celestica	Toronto, Canada	\$8,070	5	\$8,812	6	-8	>43,000	>30	>8 M	85 (% of production)	not avail.	~100: Avaya, Cisco, EMC, HP, IBM, Alcatel-Lucent, Motorola, NEC, Sun, Microsoft
Elcoteq	Luxembourg	\$5,543	6	\$5,375	7	3	24,222	10	2.27 M	~95	not avail.	~40: Nokia, Ericsson, RIM, Sony Ericsson, Thomson, Philips, Nokia Siemens Networks, Redline, Telsima
Kinpo Electronics/Calcomp Electronics	Taipei, Taiwan	\$3,100	7	\$2,590	9	20	25,000	16	8.2 M	100	not avail.	25: HP, ADB, Seagate
Benchmark Electronics	Angleton, TX	\$2,916	8	\$2,907	8	flat	~11,000	20	2.75 M	35	~150	~90: Sun, EMC, Quantum
Venture	Singapore	\$2,569	9	\$1,966	10	31	17,000	7 sites	not avail.	>90 in Asia	not avail.	>136: Agilent, HP, Hypercom, IBM, Intermec, Micros, NCR
USI (Universal Scientific Industrial)	Nantou, Taiwan	\$1,984	10	\$1,636	11	21	>12,000	6	not avail.	not avail.	not avail.	>50
Plexus	Neenah, WI	\$1,624	11	\$1,513	12	7	7,408	13	2.4 M	46	~84	152: Juniper, GE, defense customer reported to be General Dynamics
Zollner Elektronik	Zandt, Germany	~\$899	12	\$744	15	21	6,674	13	2.62 M	65	37	500
SIIX	Osaka, Japan	\$813	13	\$652	16	25	5,791	4	525 K	not avail.	76	250
Nam Tai Electronics	Macao, China	\$779	14	\$867	13	-10	8,269	3	1.07 M	100	37	~160: Sharp, Epson Imaging Devices, GN Netcom
3CEMS Group	Guangzhou, China	\$739	15	\$625	17	18	14,578	6	1.43 M	80	38	128
Kimball Electronics Group	Jasper, IN	\$706	16	\$609	18	16	3,512	10	1.21 M	48	30	>20: Bayer, Siemens
Jurong Hi-Tech	Singapore	\$702	17	\$808	14	-13	4,700	5	894 K	88	44	Motorola
Elite Industrial Group	Hong Kong	\$580	18	\$575	19	1	9,000	4	1.7 M	100	25	25: Motorola, Alcatel-Lucent, Thomson, Cobra, ShoreTel
Fabrinet	Cayman Islands	\$488	19	\$446	22	9	5,200	6	1.05 M	96	21	16: Intel, JDSU, Avanex, Finisar, Hitachi (Opnext), Emcore, Bookham, Sensata, Valeo
Beyonics Technology	Singapore	~\$451	20	~\$557	20	-19	~5000	14	~1.6 M	~90	~75	~20-30: Panasonic, Seagate, Baxter, Hauppauge, AMCC
VIDEOTON Holding	Székesfehérvár, Hungary	\$450	21	\$350	28-29	29	7,000	11 (8 active)	5.9 M	100	27	50+: Braun, Electrolux, JVC, Panasonic, Philips, Sagem, Siemens, Samsung, Bosch, Denso, Suzuki, Valeo, Visteon, Alstom, Carrier, Eaton, NCR, Emerson, GE, HP

Note: Unless otherwise indicated, data represents 2007 year end. *As of August 2007. **As of September 2007.

The MMI Top 50 EMS Providers in 2007

Organization	Head-quarters	Sales calendar 2007 (millions)	Rank by 2007 sales	2006 rank	Sales calendar 2006 (millions)	Growth '06-'07 in US\$ (%)	No. of people	No. of plants	Total facility sq. ft.	Percent space in low-cost regions	No. SMT lines	No. of customers/ notable customers
Enics	Baden, Switzerland	\$449	22	28-29	\$350	28	2,700	9	715 K	35	not avail.	ABB, Atlas Copco, Bombardier, Honeywell, Landis+Gyr, Philips, Schneider Electric, Siemens
Alco Electronics	Hong Kong	\$442	23	23	\$430	3	8,300	6	2.5 M	100	121 units	8: Wal-Mart, Target, Best Buy, Circuit City, Forest River, Costco, Harley Davidson
Wong's Electronics	Hong Kong	\$426	24	21	\$478	-11	~6,000	2	678 K	100	50	~40
TT electronics	Weybridge, UK	\$425 (estimated)	25	new	\$350 (estimated)	21	2,400	9	868 K	25 (estimated)	22	150
Orient Semiconductor Electronics	Kaohsiung, Taiwan	\$424	26	35	\$293	45	4,097	5	491 K	93	62	30
Integrated Microelectronics, Inc.	Laguna, Philippines	\$423	27	25	\$393	8	24,573	16	2 M	99	126	>100
CTS Electronics Manufacturing Solutions	Moorpark, CA	\$406	28	26	\$386	5	~1,700	8	~600 K	~35	31	>75: HP, Motorola
PartnerTech	Malmö, Sweden	\$391	29-30	24	\$415	-6	1,747	14	1.08 M	10	13	>200: Tomra, Gryos, Gunnebo, OptoPlan, Vensafe
Surface Mount Technology (Holdings) Limited	Hong Kong	\$391	29-30	30	\$343	14	>12,000	4	~1.2 M	100	152	Sony, Clarion, Daikin, Murata, LG, Konica Minolta, Stanley, Samsung, Magneti Marelli, Pricer, Mitsuba, Vasco, Emerson, Altec Lansing
Neways Electronics International	Son, The Netherlands	\$385	31	34	\$300	28	2,247	12	not avail.	40	19	~600: ASML, FEI, Philips
WKK Technology	Hong Kong	\$380	32	27	\$380	flat	5,500	1	~1.2 M	100	32	~26
V.S. Industry	Senai, Malaysia	\$344	33	42-43	\$236	46	4,255	7	1.05 M	100	34	53: Dyson, Brother, Samsung, Panasonic, Valeo Thermal Sys.
ASTEEL	Neuilly Plaisance, France	\$340	34	new	\$310	10	2,200	11	550 K	35	22	120
Creation Technologies	Burnaby, Canada	\$309	35	49-50	\$213	45	1,850	9	400 K	0	25	145
Scanfil	Sievi, Finland	\$308	36	33	\$303	2	2,061	7	1.40 M	~60	not avail.	Nokia Siemens Networks, Alcatel-Lucent, Ericsson, UTStarcom, ABB, Kone, Metso, Vacon, Vaisala, Teleste
Flash Electronics*	Fremont, CA	\$305	37	31	\$295	3	2,000	6	600 K	50	21	45: Tellabs, Huawei-3Com, Nortel, Foundry Networks, Sonicwall, Nokia, Occam Networks, Avid, RGB Networks, 3Par Data
EN ElectronicNetwork	Limburg, Germany	\$304	38	new	\$281	8	1,100	7	600 K	0	12	>200
Suntron	Phoenix, AZ	\$300	39	32	\$321	-6	1,200	6	514 K	20	14	240: Honeywell, Celco
Hana Micro-electronics	Bangkok, Thailand	\$298	40	36-37	\$275	8	10,000**	6**	>1 M**	99**	~100	~75**

Note: Unless otherwise indicated, data represents 2007 year end. *Acquired by ASTEEL in 2008.

**May be based on total sales of EMS plus semiconductor assembly.

MMI Top 50

The MMI Top 50 EMS Providers in 2007

Organization	Head-quarters	Sales calendar 2007 (millions)	Rank by 2007 sales	2006 rank	Sales calendar 2006 (millions)	Growth '06-'07 in US\$ (%)	No. of people	No. of plants	Total facility sq. ft.	Percent space in low-cost regions	No. SMT lines	No. of customers/ notable customers
Connect Systems International	Kampenhout, Belgium	\$292	41	new	\$132	120	2,034	8	540 K	60	18	420: Barco, Philips, ASML, Siemens
EPIC Technologies	Norwalk, OH	\$276	42-43	41	\$239	15	2,450	5	450 K	55	25	26
Kitron	Billingstad, Norway	\$276	42-43	48	\$226	22	1,168	9 total co.	not avail.	not avail.	not avail.	BAE Systems, SAAB Transportertech, Tandberg, Nera, Radio Components, GE Medical, Getinge, Maquet, ABB, Aimpoint, Volvo, Danaher
EPIQ	Tessenderlo, Belgium	\$265	44	new	\$184	44	3,317	5	350 K	70	17	35
DRS Technologies	Parsippany, NJ	\$261	45	44-45	\$232	13	>1,600	4	>400 K	0	4	>50: Lockheed Martin, BAE, GDC4S, ITT, Boeing, SAIC, U.S. Government
BreconRidge	Ottawa, Canada	\$260	46	39-40	\$252	3	1,600	3	660 K	40	13	30: Nortel, Tellabs, Mitel
NOTE	Danderyd, Sweden	\$258	47	42-43	\$236	9	1,171	13	614 K	39	24	~200: Powerwave, Ericsson, Network Technologies, Dresser Wayne, Flir Systems, SWE-DISH
SMTC	Toronto, Canada	\$256	48	38	\$263	-2	1,500	4	550 K	41	23	
LaBarge	St. Louis, MO	\$251	49	49-50	\$213	18	1,400	10	554 K	0	7	125: Schlumberger, Raytheon, Modular Mining, Northrop Grumman, BAE Systems, Lockheed Martin, GE, Eclipse Aviation, L-3, General Dynamics, Varian
VTech Communications	Hong Kong	\$229	50	44-45	\$232	-1	3,500	1	450 K	100	12	65

Note: Unless otherwise indicated, data represents 2007 year end.

viders are around 9 to 10 points higher than what the companies reported in euros.

In first place among Top 50 providers was **Hon Hai Precision Industry**, which has built up a nearly unassailable lead over the rest of the industry (table, p. 2). Hon Hai continues to gain market share within the Top 50 and,

by extension, the industry at large. Based on estimated sales (Hon Hai is not required to report consolidated sales until the end of April), Hon Hai accounted for about 37% of Top 50 sales, or about 29% of industry revenue. By virtue of the company's size, its results can sway the Top 50 growth rate.

Hon Hai added some 4.2 percentage points to Top 50 growth in 2007, which otherwise would have been 12.4% (Chart 3).

Flextronics remained in second position, while the next four compa-

Chart 2: Top 50 Cutoff (Millions USD)

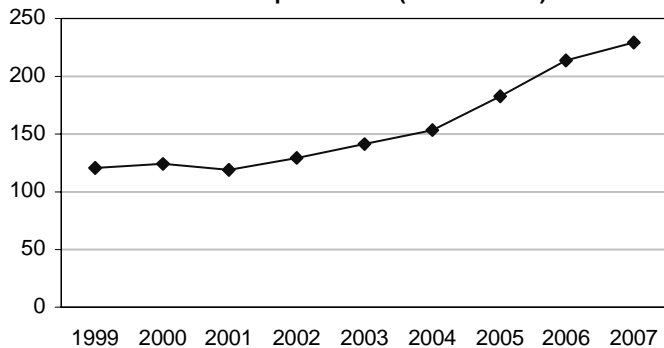
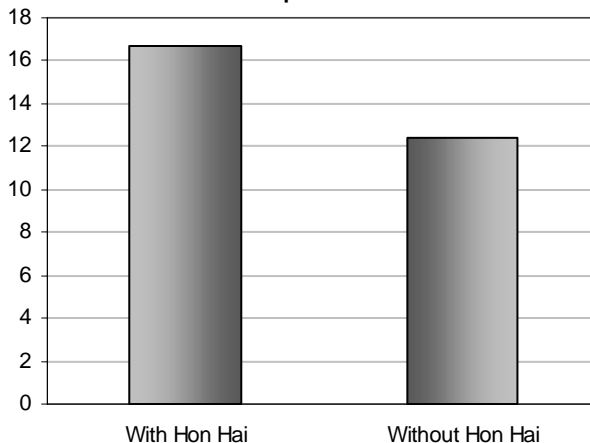


Chart 3: Top 50 % Growth 2007



Other Participants in the Top 50 Survey		
Organization	Head- quarters	Sales 2007 (millions)
OnCore Manufacturing Services	Springfield, MA	\$225 as of 2/08
Sparton	Jackson, MI	\$212
Simclar	Dunfermline, Scotland	\$205
KeyTronicEMS	Spokane Valley, WA	\$200
MC Assembly	Palm Bay, FL	\$187
Eolane Group	Le Fresne sur Loire, France	\$186
ESCATEC Group	Penang, Malaysia	\$178
Mack Technologies	Westford, MA	~\$135
Premio	City of Industry, CA	\$81

nies in the order, **Jabil Circuit**, **Sannina-SCI**, **Celestica** and **Elcoteq**, all moved up one spot from 2006 due to the disappearance of **Solectron**, which was acquired by Flextronics last year. **Kinpo Group's** combination of **Kinpo Electronics** and **Cal-Comp Electronics** rose two positions to number seven. **Benchmark** kept its eighth place, and **Venture** advanced by one position to ninth. Rounding out the top 10 was a new member, **Universal Scientific Industrial**, which set the top 10 minimum at \$1.98 billion, nearly the same as 2006's cutoff of \$1.97 billion.

The top 10 represented about 87% of Top 50 sales and about 70% of industry revenue. Combined sales for the top 10 totaled \$123.4 billion and grew 17.7% for 2007.

Five providers, all Europe-based, joined the Top 50 for the first time. In alphabetical order, they are **ASTEEL**, **Connect Systems International**, **EN ElectronicNetwork**, **EPIQ** and **TT electronics**. None of them are near the bottom of the Top 50 so currency effects did not put them on the list. Four out of five made the Top 50 either because of business growth or because

they were missed in prior surveys. The fifth, **TT electronics**, joined the club after adding in automotive business that was not counted previously.

As in past years, Top 50 data yielded two productivity ratios. A subset of 48 companies that supplied the requisite data averaged \$141,500 in revenue per employee. The other ratio, revenue per square foot, was derived from a group of 44 providers. Their facilities on the average generated \$704 per square foot. That's down 9% from the 2006 average of \$771 based on 45 providers. Unlike in 2006, the 2007 ratios include fiscal year rather calendar year sales in two cases where employee and facility space data correspond to a fiscal year end. Note that 2007 ratios are based on data some of which are approximate.

Also be aware that other Top 50 results may contain inaccuracies arising from estimates of Hon Hai's sales and the inability to exclude its non-EMS businesses.

ODMs Still on a Roll

Preliminary 2007 results for eight of the largest ODMs indicate that the ODM side of the outsourcing space again outgrew the EMS sector. For 2007, these eight ODMs produced combined growth of 37.1% expressed in NT dollars or 35.6% in U.S. dollars

(see table). Growth figures are based on cumulative monthly revenues posted by the Taiwan Stock Exchange on a non-consolidated basis.

Either way you express this growth, it's far above what was predicted for the ODM segment at large (Dec. 2007, p. 2). If this high growth holds up when other large ODMs are added and results are consolidated, it will lead to the conclusion that, contrary to forecasts, there was no sign in 2007 of EMS growth catching up to ODM growth. The corollary is that the EMS industry's share of the outsourcing space eroded further last year.

One way to see market share erosion is to compare this ODM growth rate with the 2007 increase generated by the largest EMS providers. The top 10 EMS players together boosted their 2007 sales by 17.7%, while the Top 50 grew revenue by 16.7% (see cover story). Compared with the eight large ODMs, the growth gap for the top 10 was 17.9 percentage points; Top 50 growth lagged by 18.9 points.

Driving ODM growth were four companies whose annual increases were nearly 40% or better in U.S. dollar terms (table). **Quanta Computer**, the largest ODM, also had the highest growth rate. Worldwide demand for notebook computers, a segment dominated by ODMs, had much to do with this growth. The shift from desktops to

Preliminary 2007 Sales Results for Eight Large ODMs						
Company	2007 sales mill. NT\$	2006 sales mill. NT\$	Growth NT\$	2007 sales mill. US\$	2006 sales mill. US\$	Growth US\$
Quanta	732,687	461,525	58.8	22,303	14,198	57.1
Asustek	589,892	386,039	52.8	17,956	11,876	51.2
Compal	427,461	303,071	41.0	13,012	9,324	39.6
Wistron	276,773	218,448	26.7	8,425	6,720	25.4
Inventec	239,175	235,971	1.4	7,280	7,259	0.3
Lite-On	169,503	142,600	18.9	5,160	4,387	17.6
Innolux	155,940	105,153	48.3	4,747	3,235	46.7
Inventec Appliances	79,394	95,733	-17.1	2,417	2,945	-17.9
Total/avg.	2,670,825	1,948,540	37.1	81,299	59,944	35.6

Sales are non-consolidated and are based on cumulative monthly results posted on the Taiwan Stock Exchange. NT\$ sales were converted into US\$ using annual average exchange rates from the U.S. Federal Reserve.

notebooks has been a boon to notebook ODMs.

In this century, the ODM model, which focuses on a limited number of product areas, has been a superior growth engine overall. Will this dependence on notebooks and a few other products such as flat-panel TVs and mobile phones eventually catch up with the ODM industry? Despite the financial woes of the U.S. economy, a recent IDC forecast calls for a 26.2% increase in portable computer shipments in 2008. That's down from a 33.8% increase in 2007, but is nothing to sniff at.

Yet the seemingly bulletproof

ODM industry may have developed a crack in its armor. That crack is called competition. ODMs have not feared outside competition in notebooks until the recent entry of **Flextronics** through its acquisition of **Arima's** notebook and server businesses (see News below). But the same is not true in the mobile phone arena. According to market research firm **iSuppli**, EMS providers last year shipped more than twice as many mobile phones as compared with ODM deliveries. ODM shipments went down by 3.9 percentage points to 9% of the handset total in 2007, while EMS shipments rose by 4.5 points to 21.1%, reports iSuppli.

charger, cabling, packing, printing, key-pad and plastic vendors now established in India. Going forward, we would want to see more of PCB and component suppliers coming to India," says Vagadia.

The potential for entry-level phones in India is large because, according to Vagadia, the majority of India's next 250 million subscribers will come from rural areas, where operators will predominantly use bundled low-cost handsets to acquire new subscribers. While Nokia has the manufacturing in India to produce these handsets locally, phones of other major players in the entry-level segment are imported, reports Vagadia. Entry-level phones have been targeted for manufacturing in India.

India's supply base already includes established multinational companies such as **Rittal** in enclosures, **Nypro** in plastics, and **AT&S** in PCBs. But there still is a conspicuous lack of component suppliers, especially semiconductor manufacturers. According to Vagadia, a negligible portion of the components used in India are produced domestically.

Recognizing the need to build up an indigenous supply base for components, the Indian government last year adopted a semiconductor policy that offers companies incentives for investing in the manufacture of semiconductors, displays and other such devices. Vagadia believes that this policy is working. "We are going to see quite a few of these companies coming into India over the next few years," he says.

World Markets

India's Supply Base: A Work in Progress

Disaffection with China may not be great, but it is growing. A recent survey by management consulting firm **Booz Allen Hamilton** and the **American Chamber of Commerce Shanghai** found that 17% of the 66 companies polled plan to relocate at least some of their China-based operations to other countries. Although 63% of this group see Vietnam as their top alternative to China, 37% say India is their first choice. Comparing Vietnam, which is being groomed for export, with India, whose domestic market is the main attraction, may be akin to sampling fruits of different varieties. That said, Vietnam may have received more votes, but when it comes to a supply chain for electronics manufacturing, India is ahead.

One of the best examples of supply chain progress in India can be found in the mobile phone space, where production revenues are projected to increase at a 26.6% compound annual rate, reaching \$13.6 billion by 2011, according to EMS provider **Elcoteq**. For mobile handsets, "it's possible to localize easily around 20 to 30% of

the input material," says Rajen Vagadia, Elcoteq's head of Sales-India.

Nokia has been a primer mover in the development of a supplier ecosystem for mobile phone production. As of December 2007, the Nokia Telecom Park near Chennai had seven component manufacturers, two of which were commercially operational and supplying components to Nokia, the company said in statement. Published reports identify these suppliers as **Aspocomp** (PCBs), **Foxconn** (EMS), **Jabil** (EMS), **Laird** (antennae, EMI shielding) **Perlos** (mechanics and electromechanical components), **Salcomp** (power supplies) and **Wintek** (displays). (Note that Aspocomp recently sold its India unit to a joint venture with **Meadville Holdings**, which owns 80% of the venture. Also, Perlos has been part of the **Lite-On Group** since November 2007.)

Within mobile phone space, India-supplied material is predicted to have the greatest effect on entry-level phones, where price points are around \$30. "With the supply chain ecosystem developing slowly and gradually, we would see the benefits of savings in freight, inventory holding cost, lower input cost, better service, etc. being translated in reduction of the cost of the product further. We already have

News

Flextronics Wraps Up Phase 1 of Arima Deal

Flextronics (Singapore) has completed the first phase of a two-part acquisition of **Arima Computer's** notebook and server businesses. The deal was initially reported here in the

fall of last year (Sept. 2007, p. 5). Closed on March 18, phase one included the acquisition of the design and service groups of Arima.

The second phase of the deal will include the acquisition of Arima's notebook and server manufacturing facility in WuJiang, China, and is expected to close in April 2008.

This deal enables Flextronics to enter the notebook ODM business, while enhancing the company's ODM server offering.

Hon Hai Buys Czech Plant, Says Report

Hon Hai Precision Industry (Tucheng City, Taiwan), the world's largest EMS provider also known as **Foxconn**, has purchased a plant located in the Czech Republic and operated by **FIC CZ**, according to *Thomas Financial News*, which cited a report in a Czech daily newspaper. FIC CZ is the Czech branch of Taiwanese ODM **First International Computer**, or FIC. The acquisition will give Hon Hai its third plant in the Czech Republic.

Located in Rudna near Prague, the country's capital, FIC CZ produces PCs, LCD and plasma TVs, monitors and other electronic devices, according to its web page.

Similarly, the *Economic Daily*, a Chinese language paper, reported this month that Hon Hai plans to acquire FIC's Czech PC operation. While not denying this report, Hon Hai responded by urging investors to base their information on company disclosures, which follow rules and regulation.

CTS Adds California Provider

CTS Corporation (Elkhart, IN), a component manufacturer and Top 50 EMS provider, has acquired **Orion Manufacturing**, a privately held EMS company in San Jose, CA, for about \$10 million in cash. The deal also in-

cludes an earnout of up to \$1.75 million in cash contingent on the achievement of certain financial targets in 2008 and 2009. CTS expects the transaction to be accretive in year one.

Orion generated 2007 sales of about \$27 million. Operations take place in two buildings totaling about 30,000 ft², according to the company's website. The low-volume, high-mix specialist provides turnkey EMS to customers in the defense and aerospace, industrial and medical markets. CTS says this acquisition broadens the company's customer base within targeted markets.

The company expects to achieve significant synergies by combining the Orion operation with the CTS operation in Santa Clara, CA.

RAD Electronics Makes Colorado Acquisition

RAD Electronics (Sun Valley, CA), a contract manufacturing company with operations in the U.S. and Mexico, has expanded its EMS business with the purchase of **RPM Technology**, an EMS provider in Fort Collins, CO.

With around 120 employees, RPM provides complex assembly of PCBs for companies in the semiconductor, medical, industrial controls and instrumentation industries. Current plans are to have RPM continue operating at its present location with Rob Malcom remaining as president. As a wholly subsidiary of RAD, the newly acquired company will be renamed **RPM Electronics**.

"We have been searching for a solid EMS company in the Rocky Mountain region to serve that growing area. We were fortunate to find that company in RPM Technologies," says Chuck Mann, RAD's CEO.

RAD specializes in complex assembly of PCBs, custom and molded cable assemblies, and over molded embed-

ded electronics. Serving the medical, military and aerospace, and industrial electronics sectors, RAD has three manufacturing locations: Sun Valley, CA; Wilmington, MA; and Tijuana, Mexico.

"Our plan is to continue to expand in the Rocky Mountain area as well as other emerging growth regions in North America through organic and external growth. Outsourcing in North America in our target industries is expected to continue at an accelerated rate over the next several years, and we intend to be a major part of this exciting opportunity," says Mann.

NOTE to Gain Mechanical Skills

Top 50 EMS provider **NOTE** (Danderyd, Sweden) has signed a letter of intent to acquire a mechanical engineering company in Järfälla outside Stockholm, Sweden. This move is in line with the NOTE's effort to upgrade its capacity for quickly developing sophisticated mechanical prototypes close to the customer.

With about 20 employees, the unnamed mechanical firm offers skills in high-precision machining. Its products and associated services are supplied to the nuclear and telecom industries, among others. Annualized sales are running at some SEK 25 million (\$4.1 million).

The acquisition is expected to benefit NOTE's operating profit in the current year.

Investment by FIH... Foxconn International Holdings, Hon Hai's majority-owned handset subsidiary, has obtained a 24% stake in Taiwan-based **Ways Technical**, which does plastic surface finishing. It was reported earlier that this deal was in the works (Jan., p. 7). Two FIH subsidiaries together spent NT\$1.045 billion (\$34.8 million) for this stake.

News

New business... **Ceravision** (Bletchley Park, UK), developer of a high-efficiency light bulb system powered by microwaves, has selected **Sanmina-SCI** (San Jose, CA) as its worldwide manufacturing partner. ...**Transcend Information** (Taipei, Taiwan) has partnered with Hon Hai for production of digital music players, according to *Digitimes*. ...A local newspaper reports that **Benchmark Electronics**' plant in Rochester, MN, is preparing to begin production of a new diagnostic device based on a **Mayo Clinic** technique that uses vibrations to image the body. Reportedly, the device will be marketed by an MRI company. ...Top 50 provider **Suntron** (Phoenix, AZ) and **Honeywell International** have completed a contract extension for two and one-half years. Suntron provides manufacturing services for Honeywell's aerospace business at Suntron's AS 9100-certified facilities in the U.S. and Mexico. Also, Suntron has landed a contract to manufacture complex PCB assemblies for **Celco California**, a provider of television PCBAs to the consumer electronics market. The contracted PCBAs are related to plasma TVs. Celco California is a division of **Celco Japan Group**, a consumer electronics maker.

Collaboration... **Celestica** (Toronto, Canada) has collaborated with

Microsoft on the design and manufacturing of prototypes for a development platform intended to improve the ability of Microsoft and other companies to conduct computer architecture research. ...EMS provider **Ultraflex International** (Ronkonkoma, NY) is one of five members of a partnership offering LCD touch screen solutions focused on the design cycle.

New facilities... Top 50 provider **SMTC** (Toronto, Canada) has expanded its Enclosure Division operations into Mexico with the addition of a dedicated precision metal fabrication facility on its Chihuahua, Mexico, campus. ...Next month, **ESCATEC** (Penang, Malaysia) will open a new 3,000-m² facility in Penang, and SMT capacity will increase by two lines. ...Top 50 provider **Zollner** (Zandt, Germany) plans to start production in Beja, Tunisia, in May.

People on the move... Celestica has appointed John Boucher as executive VP, supply chain management solutions and chief procurement officer and Elizabeth DeBianco as executive VP, chief legal and administrative officer and corporate secretary. These are expanded roles for both people. ...David Hockenbrocht, who had been CEO and president of **Sparton** (Jackson, MI), retired this month

and also resigned from the company's board. The board named Richard Langley interim president and CEO and Joseph Lerczak interim CFO. He succeeded Langley, who had been CFO. ...Rune Glavare, who was appointed acting CEO of Top 50 provider **PartnerTech** (Malmö, Sweden) in October 2007, will remain at the helm as president and CEO.

Some financial news... Last month, **Plexus** (Neenah, WI) announced a plan to buy back up to \$200 million of its common stock.

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