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Top 50 Surpasses $300 Billion

MMI's annual list of the 50 largest EMS providers worldwide has reached another milestone. In 2017, combined sales of the *MMI* Top 50™ EMS providers broke through the $300-billion barrier with a revenue total of $300.5 billion. While not all of this revenue is pure EMS – there is some ODM and other non-EMS business mixed in among the largest companies – the vast lion's share of it is EMS, offering a clear indication of how much OEMs now depend on the EMS industry.

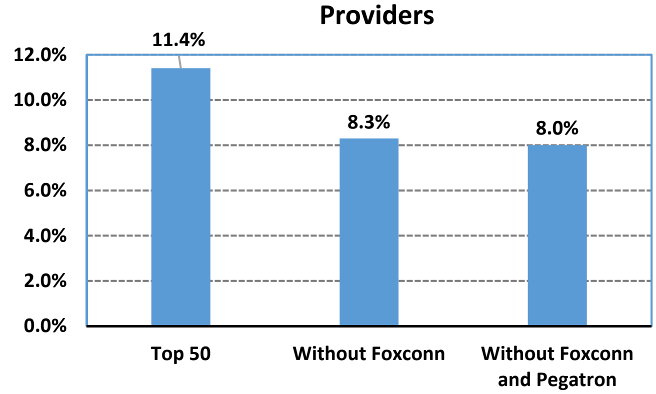
With the results of *MMI's* Top 50 survey now in, it can be said that 2017 was a generous growth year for the Top 50 as a whole. The group's 2017 sales increased 11.4% from the previous year. This result should not be surprising given better-than-expected growth in world markets and among OEMs.

In recent years, Top 50 expansion has received a boost from EMS giant Hon Hai Precision Industry because of its size and history of above-average growth. Last year, Hon Hai generated consolidated sales of $154.9 billion, which represented a growth rate of 14.6%. When Hon Hai's contribution to the Top 50 is excluded, the growth rate for the rest of the group decreases to 8.3%. So in 2017 Hon Hai exerted a 310-percentage point boost on Top 50 growth.

Hon Hai is known for assembling iPhones and iPads for **Apple**, Hon Hai's largest customer. But in recent years Apple has brought on Pegatron as a second source of assembly, and as a result Apple has become Pegatron's biggest customer as well. With Pegatron's EMS business having grown by leaps and bounds from the company's Apple relationship and other programs, does it make sense to add Pegatron to the Top 50? The answer is yes. A Pegatron representative informed *MMI* that the majority (95+%) of Pegatron's total sales in 2017 and 2016 came from EMS. EMS made up the highest percentage of the company's core DMS sales which amounted to $39.2 billion in 2017, good enough for second position in the Top 50. DMS sales grew 9.3% in 2017.

What effect did these two Apple influenced providers have on Top 50 growth? Their combined effect

Chart 1: 2017 Growth of the Top 50 EMS Providers



Was slightly positive because when the two companies are excluded from the group, its growth falls by 340 percentage points to 8% (Chart 1).

A higher cutoff

On pages 2-4, the *MMI* Top 50 providers for 2017 are ranked in order of calendar 2017 sales. As one can see from last place on the list (page 4), it took a minimum of $295 million in sales to make the Top 50. Earning a spot on the 2017 list was more difficult than the year before when the cutoff was $265 million. Sales declines at the bottom rungs of the Top 50 resulted in this higher cutoff. In spite of an increase

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Some articles in this issue

The MMI Top 50 EMS Providers in 2017

Company	Head-quarters	EMS Sales calendar 2017 (millions USD)	ODM Sales for 2017	EMS Sales calendar 2016 (millions USD)	EMS 2016 rank	EMS Growth '16-'17 in US$ (%)	No. of people	No. of plants	Total facility s.f.	No. SMT lines	No. of customers and notable customers
HonHai Precision Industry (Foxconn)	New Taipei, Taiwan	154,906		135,201	1	14.6%	1,300,000	70	50 M (est.)	2000 (est.)	Acer, Amazon, Apple, Blackberry, Cisco, Dell, HP, IBM, Intel, Nintendo, Sony, Visio, Xiaomi
Pegatron	Taipei, Tawian	39,262		35,934	2	9.3%	250,000	11	25 M (est.)	700 (est.)	Acer, Apple, ASUS, Epson, Sony, Toshiba
Flex	San Jose, CA	24,893		23,774	3	4.7%	200,000	100	50M	415 (est.)	Alcatel-Lucent, Casio, Ciena, Cree Lighting, F-5 Networks, Ford, Google, HP, J&J, Lockheed, Motorola, NEC, Oracle, Pace, Q-Cells, Siemens, Sunpower, Xerox
Jabil Circuit	St. Petersburg, FL	19,545		18,250	4	7.1%	200,000	69	26M	350 (est.)	Agilent, Apple, Cisco, EchoStar, Ericsson, GE, HP, IBM, Medtronic, Motorola, NetApp, Nokia Siemens Networks, Novartis, Pace, Sunpower, Valeo
Wistron	Taoyuan, Taiwan	7,425		5,529	7	34.3%	34,280	8	20.5 M	81	Acer, Apple, ASUS, Dell, HP, Japan Display & Lenovo
Sanmina	San Jose, CA	6,868		6,667	5	3.0%	47,000	39	12.6 M	220	Advanced Digital Broadcast, AT&T, Brunswick, Canon, Ciena, Citizen, Dell, Diebold, GE, Harman, HP, IBM, Illumina, Panasonic, Philips, RF Surgical, Seagate, Trane
Celestica	Toronto, ON, Canada	6,111		6,017	6	1.6%	25,000	23	7.3 M	150 (est.)	Agilent, Alcatel-Lucent, Applied Materials, Baxter, Carrier, Cisco, EMC, HP, Hitachi, Honeywell, IBM, Juniper, NEC, Oracle
New Kinpo Group	New Taipei, Taiwan	4,538	1,362	4,452	8	1.9%	39,366	33	1,755,809	310	HP / Seagate / Western Digital / Panasonic / Toshiba / Hitachi / TI / Casio / Pace / Nikon / Pioneer / GE / Lenovo / Asus / Asrock / Gigabyte / Sony / Buffalo / Epson / Samsung
USI	Shanghai, China	2,910		2,286	11	27.3%	15,000	7	3.8 M	128	100+
Venture	Singapore	2,901		2,083	13	39.3%	12,000	12	3.7 M (est.)	180	ABB, Aglient, Dyson, Fluke, Georgia Pacific, HP, Honeywell, IBM, Illumina, Keysight, Micros, NCR, Oclaro, Qlogic, Perfect, Talaris/Glory, Toshiba-TEC, Verifone, Waters, Zodiac
Plexus	Neenah, WI	2,570		2,574	9	-0.2%	14,000	12	3.1 M	90	ABB, AMX, ARRIS Group, Coca-Cola, Draeger, Dragonwave, GE, General Dynamics, Gotham Networks, Harmonic, Honeywell Aerospace, Inovonics, Juniper, Motorola, MNS, Patientline, Siemens, Tellular, Visual Networks
Benchmark Electronics	Scottsdale, AZ	2,467		2,310	10	6.8%	10,600	18	4.2M	148	Agilent, Alcatel, Applied Materials, ARRIS Solutions, Cray, Emerson, IBM, Medtronic
Shenzhen Kaifa	Shenzhen, China	1,936	174	2,160	12	-10.4%	28,000	9	4.5 M	>160	Seagate, WD, Kingston, FPC, Huawei, vivo, EPSON, Amphenol, Tecate, Maxwell, Resmed
Zollner	Zandt, Germany	1,560		1,384	14	12.7%	10,974	17	3.4 M	70	AL Lighting Automotive, BMW, Continental, Valeo, Alcatel-Lucent, Core Optics, National Instruments, G&D, HP, IBM, BSH, Miele, ABB, Agilent, Bombardier, Carl Zeiss, Teradyne, Verigy, Draeger Medical, Dornier Medtech, Siemens, Diehl Aerospace
SIIX Corp.	Osaka, Japan	1,468		1,330	15	10.4%	11,202	11	2.1 M	N/A	200+

Note: Unless otherwise indicated, data represents 2017 year-end.

Business Model	Company	Head-quarters	EMS Sales calendar 2017 (millions USD)	ODM Sales for 2017	EMS Sales calendar 2016 (millions USD)	EMS 2016 rank	EMS Growth '16-'17 in US$ (%)	No. of people	No. of plants	Total facility s.f.	No. SMT lines	No. of customers and notable customers
16	Fabrinet	Grand Cayman, Cayman Islands	1,432		1,211	16	18.3%	9,938	6	2.0 M	34	Avanex, Bookham, Cisco, Coherent, Emcore, Finisar, Hitachi Cable, Intel, JDSU, Lumentum Operations, Oclaro, Valeo
17	UMC (est.)	Saitama, Japan	1,111		1,026	17	8.3%	11,455	8	1.2 M	153	
18	Integrated Micro-Electronics, Inc.	Laguna, Philippines	1,090		843	20	29.3%	16,748	19	3.1 M	132	400+
19	Kimball Electronics	Jasper, IN	986		891	19	10.7%	5,650	9	1.2 M	40	Philips, ZF-TRW, Nexteer Automotive
20	PKC Group (est.)	Raahe, Finland	974		936	18	4.0%	19,640	10	1.3 M	30	Saab, Sinotruk
21	V.S. Industry Berhad	Senai, Malaysia	913		586	28	55.9%	11,594	11	3.3 M	41	Dyson, Georgia-Pacific, Keurig, Perfect, Zodiac
22	Sumitronics	Tokyo, Japan	913		815	21	12.0%	N/A	26	N/A	N/A	
23	Asteelflash	Neuilly, France	850		736	23	15.5%	5,500	17	1.5 M	50	300
24	NEO Tech (est.)	Fremont, CA	785		785	22	0.0%	3,800	14	1.2 M	42	
25	VTech Communications	Hong Kong	675		631	26	7.0%	5,000	1	1.15 M	25	90
26	Alpha Networks	Hsinchu, Taiwan	627		677	24	-7.4%	6,000	3	530,000	30	
27	Enics AG	Zurich, Switzerland	614		555	30	10.6%	3,200	10	867,000	N/A	ABB, Alfa Laval, Axis Communications, Bombardier Transportation, CRRC Yongji Electric, Dentsply Sirona, Detection Technology, Domino Printing, Eaton, Ensto, Gambro, Honeywell, Leica Biosystems, Roche Diagnostics, Schneider Electric, Tomra, Vaisala
28	Scanfil	Sievi, Finland	600		562	29	6.8%	3,337	10			Danfoss, ABB, The Switch (Yaskawa), Metso, Valmet, Nokia, Ericsson, Airbus, Teleste, Axis, Invisio, Thermo Fisher Scientific, Planmeca, Vaisala, Getinge, Kone, Veikkaus, Photo-Me (KIS), Tomra, Philips
29	3CEMS Group	Taipei City, Taiwan	597		667	25	-10.5%	4,873	4	1.3 M	35	Finisar, Kyocera, Rohde & Schwarz, ASUS, Tridium, Honeywell, Goodman, Kongsberg, Fujifilm, Mobileye, Maxon Motor, GAC Motor, Geely Auto
30	VIDEOTON	Székesfehérvár, Hungary	594		528	32	12.5%	8,476	9	4.6 M	31	Valeo, Philips, ebm-papst, Procter & Gamble, Osram, De'Longhi, BWI, Bosch, AML Systems, ghd, Hager, GE, OneAccess, Emerson, Grupo Antolin, TE Connectivity, Johnson Electric, Harman/AKG, Itron, Electrolux,
31	Creation Technologies	Burnaby, BC Canada	591		630	27	-6.2%	3,100	9	750,000	35	> 200
32	Ducommun, Inc.	Santa Ana, CA	558		551	31	1.3%	2,750	12	1.6 M	10	Boeing, Raytheon, Spirit and United Technologies

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33	Katolec	Japan	551		490	33	12.5%	5,514	11	1.4 M	120	Canon, Epson, Mitsubishi Electric, Panasonic, Pioneer, TOTO
34	Neways Electronics	Son, The Netherlands	496		462	36	7.4%	2,593	11	1.1 M	21	~760
35	Key Tronic	Spokane Valley, WA	467		482	35	-3.0%	5,038	14	1.8M	39	Citrix, Clorox, DND, HP, International Gaming, Lexmark, QUALCOMM, Transact, TPG, Zebra
36	WKK Technology	Hong Kong	455		453	39	0.4%	4,425	2	1.0 M	60	Alcatel-Lucent, Canon, Fujitsu, NEC, Oki, Philips, Yamaha
37	Wong's International Holdings Ltd. (est.)	Hong Kong	450		440	40	2.3%	4,300	2	1.0 M	60	20+
38	Orient Semiconductor Electronics	Kaohsiung, Taiwan	438		458	37	-4.4%	2,438	8	756,336	83	101
39	éolane	Le Fresne Sur Loire, France	426		411	42	3.6%	3,200	16	968,850	45	Airbus, Alstrom, Areva, Dassault, Orange, Renault, Rolls Royce, Safran, Schlumberger, SFR, Siemens Automotive, Thales, Valeo, Zodiac
40	Computime	Hong Kong	416		454	38	-8.4%	4,000	4	1.2 M	28	
41	ALL CIRCUITS	Meung Sur Loire, France	410		369	44	11.2%	1,500	3	538,250	25	Sagem
42	Sparton	Schaumburg, IL	398		407	43	-2.3%	1,853	9	641,860		Andrews Technology, BAE Systems, Bally, BioMarket Strategies, Cytomedix, Fenwal, GE,Goodrich, Honeywell, Neuronetics, Northrup Grumman, NuVasive, Parker, Raytheon, Siemens, Smith Detection, U.S. Navy
43	SVI	Bangkadi, Pathumthani, Thailand	370		352	45	5.1%	3,780	7	1 M	40	ABB
44	Valuetronics Holdings	Hong Kong	363		298	48	21.8%	4,000	2	800,000	26	
45	LACROIX Electronics	Saint Herblain cedex, France	358		344	46	4.1%	3,250	4	430,600	26	250+
46	SMT Technologies	Kedah, Malaysia	343		258	52	33.0%	2,500	7	308,597	26	Western Digital, Dyson, OJ Electronics, Decathlon, Alpha Networks
47	Hana Microelectronics	Bangkok, Thailand	334		483	34	-30.8%	17,500	4	1.3 M	105	Avago, HID, Lumiled, Safenet, Sensata, Synaptics
48	Global Brands Mfg.	New Taipei City, Taiwan	329	350	415	41	-20.6%	6,661	3	102,825	99	Toshiba, Searching Win, InfoAction, Carrier, Gigabyte
49	Fideltronik	Sucha Beskidzka, Poland	310		265		17.0%	2,185	5	414,453	32	Philips, ABB, Toyota, Bosch
50	Kitron	Billingstad, Norway	295		249		18.4%	1,451	6	430,600		100+
	Total		**300,480**	**1,885**	**269,675**		**11.4%**					

Note: Unless otherwise indicated, data represents 2017 year-end.

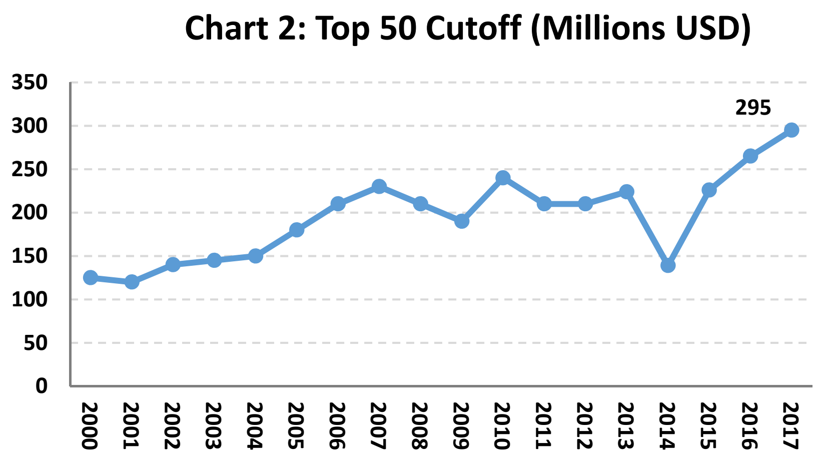
in the cutoff, it reached above its peak set in 2010 (see page 5, Chart 2.

Four companies from the 2016 list dropped off the 2017 version. These companies are Topscom (Shenzhen, China), Di-Nikko Engineering Co. Ltd. (Nikko City, Japan), Nippon Manufacturing Service (Tokyo, Japan) and TT Electronics (Rogerstone, Wales, UK).

Four departures meant that there were four additions to the Top 50. The companies joining the 2017 list include Alpha Networks (Hsinchu, Taiwan), Sparton (Schaumburg, IL), SMT Technologies (Kedah, Malaysia), and Fideltronik (Sucha Beskidzka, Poland). Kitron returned to the Top 50 list with strong growth of 18.4 percent.

Counting down the top ten

The makeup of the top ten providers did not change much as the first four companies maintained their previous ranking. However, Wistron and USI both moved up two position from 2016 while Sanmina lost one position and Plexus got replaced by USI. Venture moved up three positions from 2016.



Top 10 admission required sales of at least $2.9 billion, compared with $2.60 billion for 2017. The top 10 minimum was 10.7% higher than the year before, making it a bit harder to break into the top 10.

For 2017, the top 10 accounted for 89.3% of Top 50 sales, further indicating how top-heavy the EMS industry has become. Nonetheless, the top 10's share declined from 2016 when it was 89.8%. In 2017, the top 10 were able to sustain their scale and size advantage, as their growth increased compared to bottom 40 providers in the group. The bottom 40 together produced a 5.8% growth rate, 630 basis points lower than the top 10 result (Chart 3, below). For providers looking to benchmark themselves against a pure EMS average, bottom 40 growth may be more appealing because non-EMS business accounts for a smaller share of bottom 40 revenue than in the case of the top 10.

Upward mobility

A total of 37 companies moved up in revenue from 2016. There were more upward mobility in 2017 than in 2016 because more companies were unable to achieve the sort of growth necessary to advance in our standings.

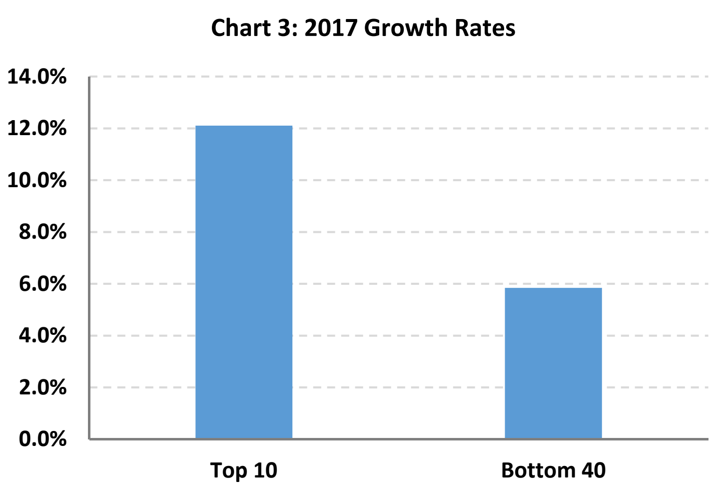
V.S. Industry Berhad accomplished the greatest jump in the order by moving up seven places. The revenue growth was achieved on the back of substantial increase in sales orders from its clients in Malaysia, Indonesia and China. All three geographical markets posted very healthy double-digit growth for the period under review – Malaysia (+41.8% YoY), Indonesia (+35.6% YoY) and China (+42.8% YoY). Malaysia remains VS' primary revenue contributor at 67.8%, followed by China (27.3%) and Indonesia (4.9%).

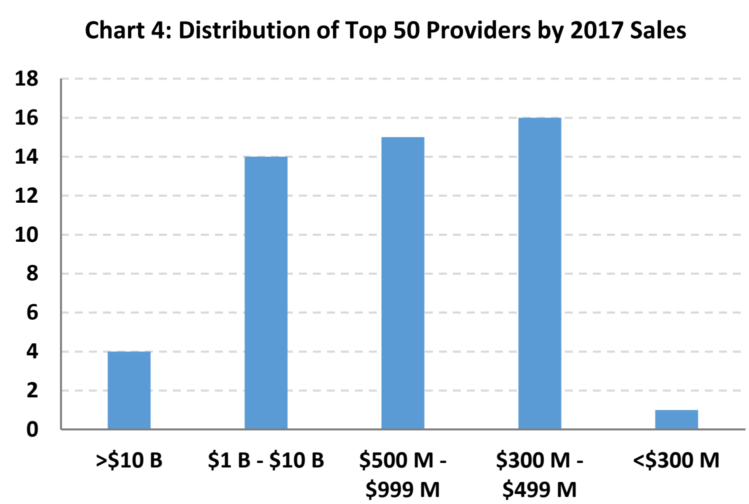
In 2017, a 32% majority of the Top 50 had sales of at least $300 million. By contrast, these providers constituted a minority in the previous two years. Interestingly, there were similar number of companies in the $1 billion to $10 billion bracket and in the $500 million to $999 million bracket (Chart 4 below).

Three participants in the Top 50 survey reported revenue that was below the Top 50 cutoff. They are Di-Nikko Engineering Co. Ltd. ($227 million in EMS sales) and ESCATEC ($190 million for fiscal 2017) and Prettl Electronics ($174 million).

Benchmarking ratios

Top 50 data yield three productivity ratios. One can start with revenue per employee. Employee counts for 48 companies totaled about 2.4 million people, of which an estimated staffing level of about 1.3 million was attributed to Hon Hai. If one were to assume 1.3 million employees for Hon Hai, the revenue per employee for these 48 providers works out to $124,997. But this ratio is skewed by the economics of Hon Hai's massive workforce. With Hon Hai excluded, revenue per employee increases to $131,941, which is below the 2016 ratio of $134,804 based on a somewhat different group of 50





companies that also excluded Hon Hai.

Top 50 data can also be used to calculate revenue per SMT line. Of the 50 providers, 44 companies reported the number of SMT lines that they operate. Revenue per SMT line for these companies averaged $46 million, which was lower than the 2016 ratio of $60 million per line computed for a somewhat different group of 45 Top 50 providers. Note that revenue per SMT line is highly variable, depending on the speed and productivity of a line, whether it is single or double sided, and the amount of EMS revenue generated by box build.

Methodology. Where information was not publicly available, *MMI* depended on companies to provide accurate data. Companies were asked to convert sales in non-US currencies into US dollars, if necessary, by using an average annual exchange rate corresponding to the sales year. Where possible, sales of non-EMS businesses were excluded. A number of the largest providers do not break out the sales of their non-EMS businesses. Hence, the Top 50's total revenue is not purely EMS.

Company News

Eolane Tallinn to Open New Manufacturing Site

Eolane's Estonia operation is moving into a new building in Tallinn, where approximately 300 new jobs are expected to be created during the next few years, according to published reports.

The new plant will increase the floor space of the company's manufacturing to 11,000 square meters in three stages, with the first stage of 6,700 square meters to be commissioned in the fall.

Operations and the company's 500 Estonia staff plan to move to the new location by the end of the year. The new site will manufacture communications equipment, LED lights for the automotive industry, and other electronics.

Timberline Manufacturing Expected to Double EMS Production Space in Iowa

Timberline Manufacturing plans to double its production space in Marion Iowa, and add 56 employees within the next three years to increase its current staff of 165. The company expects to spend $12.8 million on the project.

The firm plans to build an 85,000-square-foot production space adjacent to its current headquarters. A future addition of 13,500 square feet is planned, if necessary, according to reports.

Timberline makes PCB assemblies, control panels, and wire harnesses for companies including Rockwell Collins.

If Timberline moves forward with plans, construction could start in April and is projected for an end-of-year completion.

Wistron to Invest $106M to Expand in India

Wistron plans to invest some $106.4 million to acquire additional land near Bengaluru, India, according to published reports.

The government approved the firm's proposed investment to make smart phones (including Apple iPhones), Internet of Things products, and biotech devices in the region.

Wistron projects that its business at the site will create 6,000 jobs.

Hindley Circuits Buys Fellow UK-Based EMS Magnum Electronics

Hindley Circuits has acquired **Magnum Electronics** for an undisclosed sum. Other details were not disclosed.

Magnum was founded in 2008 by ex–TT Electronics technology manager Steve Crosby. It employs 40 workers in Cramlington, UK. Crosby will join Hindley as engineering manager.

Hindley was founded by Richard Whitehead in 2016 in the aftermath of the failure of Opsol, another UK EMS firm. It has annual revenue of £2.5 million and employs more than 40 staff.

As It Fixes Balance Sheet, SMTC Looking for Acquisitions

SMTC is looking for acquisitions in the military and medical sectors, the company's top executive said on a conference call this week.

"I have spent a significant amount of my time ... analyzing the market for what's available, what we would be interested in," Eddie Smith, President and CEO, told analysts. "Clearly we don't play today because of our corporate structure in the ITAR, mil, aero, defense and medical space. With an acquisition, we'd like to change that so we can play in the ITAR business, the mil/aero/defense (and) highly regulated markets.

"The company would look [at] a merger or acquisition in China over greenfielding there," Smith said. "Many of our customers are actually bringing things back from China to our Mexico plant. I don't foresee us opening another plant in China greenfield, the only way that will happen is through M&A."

KLA-Tencor to Acquire Orbotech in $3.4B Deal

KLA-Tencor has entered into a definitive agreement to acquire **Orbotech** in a cash and stock deal valued at approximately $3.4 billion.

Under the terms of the deal, KLA-Tencor will pay $38.86 in cash and 0.25 of a share of its common stock in exchange for each ordinary share of Orbotech. The implied value of the offer is $69.02 per share. The deal gives Orbotech an enterprise value of $3.2 billion.

The transaction has been approved by both companies' boards and is expected to close by the fourth quarter, subject to approval by Orbotech's shareholders, required regulatory approvals, and other customary closing conditions. No approval by KLA-Tencor stockholders is required.

KLA-Tencor expects to save $50 million annually due to cost synergies within 12 to 24 months following the closing of the transaction, and the transaction is expected to be immediately accretive to revenue and non-GAAP earnings.

The acquisition will significantly diversify KLA-Tencor's revenue base and add $2.5 billion of addressable market opportunity in the high-growth printed circuit board (PCB), flat panel display (FPD), packaging, and semiconductor manufacturing areas.

US Navy Recommendations Scuttle Sparton-Ultra Merger

Sparton and **Ultra Electronics** have terminated their merger agreement following a review by the US Department of Justice (DOJ).

The respective EMS companies had signed a deal last July 7, and had received approvals from shareholders and several agencies prior to the DOJ review.

As part of the Justice review, the US Navy, a customer of the two firms' joint venture known as ERAPSCO, indicated it would recommend DOJ block the merger. Instead, the Navy recommended that the two companies improve their respective capabilities to produce sonobuoys, which the Navy buys from ERAPSCO, with the ultimate goal to eliminate the JV.

In light of the Navy's objections, DOJ staff informed Sparton and Ultra it intended to recommend that the DOJ block the merger. Had the DOJ chosen that path, it would have likely sought a court injunction. In response, Sparton and Ultra determined that it was in the best interests of the parties to terminate the merger agreement.

The DOJ plans to open an investigation for purposes of evaluating ERAPSCO, and Sparton said it anticipates that the Navy will assist in funding Sparton's transition to independently developing, producing, and selling sonobuoys.

Foxconn to Buy Belkin in $866M Deal

A **Foxconn** subsidiary is acquiring Belkin for $866 million in cash. **Foxconn Interconnect Technology**, the unit that makes connectors, antennas and cables, will widen its scope to include OEM products such as routers and networked devices. Belkin CEO and founder Chet Pipkin reportedly will remain with the company.

The deal will likely need approval by the Committee on Foreign Investment in the United States.

Benchmark Electronics Expands with 3-D Plant in Penang

Benchmark Electronics commemorated the expansion of its third facility in Penang.

The facility became operational last year, and is the EMS company's only plant that provides the full range of its solutions at one location.

Since 2007, the EMS company has invested some RM300 million ($76 million) in Penang, and it employs more than 1,000 workers there.

At the opening ceremony, Benchmark CEO and president Paul Tufano expressed satisfaction with the company's growth and success in Penang. He reiterated Benchmark's commitment to Penang and the desire to make Penang one of Benchmark's most prominent manufacturing hubs in the world.

Lite-On Sells Camera Module Unit to LuxVisions Innovation

Lite-On Technology announced the sale of the company's camera module business to **LuxVisions Innovation** for $360 million in cash, plus a right to obtain LuxVisions's 10% shares.

The deal is pending certain approvals and is expected to close in the second quarter.

The deal includes the transfer of the unit's operations and assets, including inventories, equipment, personnel, technologies, intellectual properties, client and supplier relationships, and accrued warranty.

Lite-On has run the business for more than 15 years. It supplies products for mobile phones, tablets, and notebook PCs, and is the major supplier to leading mobile device brands.

Lite-On said it will focus on developing new businesses, such as cloud computing, LED components and outdoor/automotive lighting, automotive electronics, biomedical technology, and industrial automation.

Nortech to Expand EMS Operations in Mexico

Nortech Systems has signed a lease for a new facility to be built in Monterrey, Mexico, approximately five miles from the company's current location.

The company plans for occupation during the third quarter of 2018, with the transfer of operations expected by year end.

The Monterrey facility opened in 2001, producing wire harnesses and cable assemblies. The facility's size, employment, and capabilities have steadily grown, including adding printed circuit board assemblies and higher-level electronic assemblies.

RNB Enterprises, Phoenix-Based EMS Shop, Closing

Micro-tier EMS **RNB Enterprises** is closing after 42 years in business; it is being sold at auction.

The company, which opened in 1976, was owned by Raymond Bennett. The owners are retiring, according to **X-Line Assets**, which is auctioning the equipment.

Rick McClain Named Milwaukee Electronics President

Milwaukee Electronics announced that Rick McClain had been promoted to president. McClain has served as the company's chief operating officer (COO) since 2016. P. Michael Stoehr, who previously served as president and chief executive officer (CEO), will continue as CEO.

McClain joined Milwaukee Electronics in 1999, serving as general manager of the company's Canby, Oregon facility prior to being promoted to COO. He was previously chief financial officer of Electronic Controls Design, Inc. Before that he served as controller and operations manager at Dynacast, Inc., managing ERP implementation and turnaround activities in two divisions. McClain received a BA degree in accounting from the University of Oregon.

Nortech Expands Suzhou Plant

Nortech Systems has expanded capabilities at its manufacturing facility in Suzhou to support its regional machine vision technology customers.

"Given the explosive growth of machine vision, robotics, and automation technology manufacturers in Asia, it makes sense for us to expand our regional Intercon 1 manufacturing to support those customers," said Rich Wasielewski, president and CEO of Nortech Systems. "This facility allows us to provide faster, local support for both engineering solutions and product availability."

The Suzhou facility began production of Intercon 1 Camera Link and USB 3.0 vision products in the second quarter of 2017, and capabilities expanded during 2017.

Canadian EMS Provider Expands into the US

Canadian EMS provider **Microart Services, Inc**. is expanding. The company has secured a factory location in North Tonawanda, New York, which will be Microart's first expansion outside of Canada.

In an email to *Evertiq*, Mr. Wood, CEO, stated that the company expects to add about 10 new employees in the 4,000-square-foot manufacturing facility.

Microart expects to be operational at the new factory by April 1 of this year. Audits for certain ISO certifications will be scheduled for September to give the company time to build up documentation to support the audits.

IEC Electronics Expands Newark Operations, Creates 362 Jobs

IEC Electronics says it is building a new manufacturing facility in Newark, New York. The new 150,000-square-foot facility is expected to open in mid-2019.

Located at the Silver Hill Technology Park, the company's new business expansion is expected to create 362 new jobs, while retaining 463 positions in New York State, a press release reads.

The company's new facility expansion is expected to be a US$22 million project, which includes the cost of the building, new equipment, and other costs.

New York State, through Empire State Development (ESD), the state's economic development agency, will provide up to US$3 million in performance-based Excelsior Job Program tax credits in return for the company's job-creation commitments. ESD will also provide up to US$2 million in capital grants, which are tied to investment levels and employment thresholds.

Publisher: Randall Sherman

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Research Analyst: Vivek Sharma

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E-mail: rsherman@mfgmkt.com

Website: www.newventureresearch.com