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Top 50 Surpasses \$270 Billion

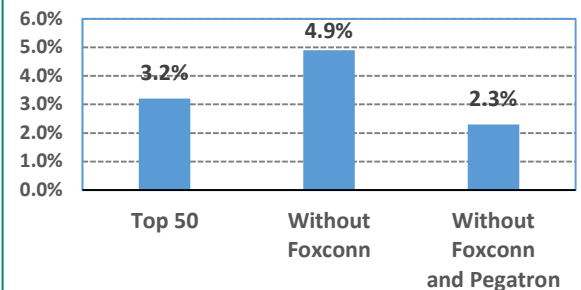
MMI's annual list of the 50 largest EMS providers worldwide has reached another milestone. In 2015, combined sales of the *MMI* Top 50™ EMS providers broke through the \$270 billion barrier with a revenue total of \$272.5 billion. While not all of this revenue is pure EMS—there is some ODM and other non-EMS business mixed in among the largest companies—the 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 2015 was an exponential growth year for the Top 50 as a whole. The group's 2015 sales increased 3.2% from the previous year. This result should not be surprising, given **Apple's** launch of the iPhone 6s and iPad Pro series, which increasingly contributed to revenue for a few EMS providers.

In recent years, Top 50 growth 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 \$141 billion, which represented a growth rate of just 1.6%. When Hon Hai's contribution to the Top 50 is excluded, the growth rate for the rest of the group increases to 4.9%. So in 2015 Hon Hai exerted a 1.8 percentage point drag on Top 50 growth.

Hon Hai is known for assembling iPhones and iPads for Apple, its 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. Pegatron is also the sole assembler of **Microsoft's** notebook product Surface Pro. With Pegatron's EMS business having grown by leaps and bounds, recording a 13.6% growth rate in 2015, Pegatron saw annual net profits rise 52.5% to US\$873.5 million in 2015, according to company reports. This was boosted by a growing share of Apple's supply chain, including the hugely popular iPhone 6 and 6s and Microsoft's Surface Pro 4. The company said that its non-computing segments, which accounted for 78% of 4Q2015 sales of NT\$411.9 billion (\$12.70 billion), resulted in a net profit of NT\$6.82 billion, up 13% on quarter and 20% on year. It is expecting to see a 40–45% quarterly decline in sales this quarter. It also said the volume of notebooks it ships is likely to fall by 25% to 30%, while the volume

Chart 1: 2015 Growth of the Top 50 EMS Providers



of motherboards and desktop computers will be unchanged or fall no more than 5%.

What effect did these two Apple-influenced providers have on Top 50 growth? Their combined effect was slightly positive because when the two companies are excluded from the group, its growth falls by 0.9 percentage point to 2.3% (Chart 1).

A Higher Cutoff

On pages 2–5, the *MMI* Top 50 providers for 2015 are ranked in order of calendar 2015 sales. As one can see from last place on the list (page 5), it

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The MMI Top 50 EMS Providers in 2015

Company	Head-quarters	Sales calendar 2015 (millions USD)	EMS or ODM Sales for 2015	Rank by 2015 (millions USD)	Sales calendar 2014 (millions USD)	2014 rank	Growth '14-'15 in US\$ (%)	No. of people	No. of plants	Total facility square feet	No. SMT lines	No. of customers and notable customers
HonHai Precision Industry (Foxconn)	New Taipei, Taiwan	141,227		1	139,030	1	1.6%	1,290,000	70	45.5 M (est.)	2000 (est.)	Acer, Amazon, Apple, Blackberry, Cisco, Dell, HP, IBM, Intel, Nintendo, Sony, Visio, Xiaomi
Pegatron	Taipei, Taiwan	34,652	3,579	2	30,506	2	13.6%	250,000	11	25 M (est.)	350 (est.)	Acer, Apple, ASUS, Epson, Sony, Toshiba
Flex	San Jose, CA	24,595		3	26,921	3	-8.6%	15,000	69	27.6 M	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	18,557		4	15,969	4	16.2%	160,000	37	77.6 M	300 (est.)	Agilent, Apple, Cisco, EchoStar, Ericsson, GE, HP, IBM, Medtronic, Motorola, NetApp, Nokia Siemens Networks, Novartis, Pace, Sunpower, Valeo
Sanmina	San Jose, CA	6,374		5	6,438	6	-1.0%	44,000	72	12 M	220 (est.)	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	5,639		6	5,630	7	0.2%	33,000	75	6.6 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	4,423	1,896	7	7,230	5	-38.8%	37,377	31	15.5 M	295 (est.)	HP, Seagate, Western Digital, Panasonic, Toshiba, Hitachi, TI, Casio, Pace, Nikon, Pioneer, GE, Lenovo, Asus, Asrock, Gigabyte, Sony, Buffalo, Epson, Samsung
Wistron	Taoyuan, Taiwan	4,051	15,583	8				24,101	8	1.4 M	78	Acer, Apple, ASUS, Dell, HP, Japan Display & Lenovo
USI	Shanghai, China	2,779	1,586	9	2,579	10	7.8%	15,000	7	3.2 M	128	100+
Plexus	Neenah, WI	2,607		10	2,509	11	3.9%	14,000	19	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	Angleton, TX	2,541		11	2,797	8	-9.2%	10,500	21	3.7M	148	Applied Materials, ARRIS Solutions, Emerson, IBM
Shenzhen Kaifa	Shenzhen, China	2,447		12	2,654	9	-7.8%	23,000	7	5.8 M	>150	Seagate, Western Digital, HGST, Kingston, Samsung, ZTE, Huawei, Epson, ResMed, ENEL

Note: Unless otherwise indicated, data represents 2015 year-end. (*) - includes 6 affiliates

Company	Head-quarters	Sales calendar 2015 (millions USD)	EMS or ODM Sales for 2015	Rank by 2015 (millions USD)	Sales calendar 2014 (millions USD)	2014 rank	Growth '14-'15 in US\$ (%)	No. of people	No. of plants	Total facility square feet	No. SMT lines	No. of customers and notable customers
Venture	Singapore	1,933		13	1,950	12	-0.9%	12,000	10	3.7 M (est.)	180	ABB, Agilent, HP, Honeywell, IBM, Illumina, Keysight, Micros, NCR, Oclaro, Qlogic, Talaris/Glory, Toshiba-TEC, Verifone, Waters
Zollner	Zandt, Germany	1,304		14	1,423	13	-8.4%	9,200	17	3.1 M	63	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	1,150	791	15	1,139	14	1.0%	9,567	15	1.45 M	N/A	200+
PKC Group	Raahe, Finland	1,008		16	1,101	23	-8.4%	19,640	10	1.3 M	30	Saab, Sinotruk
UMC	Saitama, Japan	915		17	1,034	15	-11.5%	10,120	9	1.5 M	148	
Sumitronics	Tokyo, Japan	874		18	914	16	-4.4%	3,700	24	N/A	N/A	
Fabrinet	Grand Cayman, Cayman Islands	845		19	678	21	24.7%	7,715	4	1.4 M	29	Avanex, Bookham, Cisco, Coherent, Emcore, Finisar, Hitachi Cable, Intel, JDSU, Oclaro, Valeo
Kimball Electronics Group	Jasper, IN	816		20	796	19	2.5%	4,357	7	1.1 M	40	Philips, Regal Beloit Corporation, ZF-TRW, Nexteer
Integrated Micro-Electronics, Inc.	Laguna, Philippines	772		21	845	18	-8.5%	13,375	13	2.5 M	114	324+
NEO Technology	Fremont, CA	767		22	205	36	274.1%	3,400	13	1.2 M	42	
Asteelflash	Neuilly, France	755		23	708	20	6.6%	5,200	18	1.8 M	45	150+
Ducommun, Inc.	St. Louis, MO	666		24	422	34	57.8%	2,900	17	1.9 M	12	Bell Helicopter, Boeing, Parker Aerospace, Raytheon, Sikorsky
3CEMS Group	Guangzhou, China	628		25	697		-9.9%	7,860	7	2.2 M	49	Finisar, Rohde & Schwarz, Honeywell, ASUS, Kongsberg Maritime
Vtech Communications	Hong Kong	579		26	515	29	12.4%	4,200	1	850,000	24	80+
Scanfil	Sievi, Finland	573		27	285	49	101.2%	2,690	17	2.2 M	33	Vacon (Danfoss), ABB, The Switch (Yaskawa), Metso, Nokia, Ericsson, Airbus, Teleste, Axis, Thermo Fischer Scientific, Planmeca, Vaisala, Getinge, Kone, RAY, Photo-Me (KIS), Tomra, INVISIO Communications, Saab, BAE Systems

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Enics AG	Zurich, Switzerland	560		28	600	24	-6.7%	3,200	8	756,000	N/A	ABB, Alfa Laval, Bombardier, Domino Printing, Eaton, Ensto, Gambro, Honeywell, Schneider Electric, Tomra, Vaisala
Katolec	Japan	529		29				5,024	11	1.4 M	118	Panasonic, Canon, Epson, Pioneer, FUJIFILM, HONDA LOCK, TOKAI RIKAI, Omron
V.S. Industry Berhad	Senai, Malaysia	521		30	574	25	-9.2%	8,504	11	3.6 M	45	Dyson, Georgia-Pacific, Keurig, Green Mountain, Seb/Calor Group, Zodiac
WKK Technology	Hong Kong	510		31	510	31	0.0%	6,500	1	1.5 M	42	Alcatel-Lucent, Canon, Fujitsu, NEC, Oki, Philips, Yamaha
Wong's International Holdings Ltd.	Hong Kong	490		32	530	27	-7.5%	4,300	2	1.0 M	60	20+
Key Tronic	Spokane Valley, WA	472		33	345	41	36.9%	4,866	18	1.9M	39	Citrix, Clorox, HP, International Gaming, Lexmark, QUALCOMM, Transact, TPG, Zebra
Orient Semiconductor Electronics	Kaohsiung, Taiwan	468		34	388	37	20.6%	2,656	8	756,336	83	110
VIDEOTON	Székesfehérvár, Hungary	454		35	512	30	-11.3%	8,200	9	4.6 M	30	BSH, De'Longhi, ghd, Electrolux, Liebherr, Philips, Procter & Gamble, PSS, AML Systems, Bosch, BWI, Continental, Denso, Faurecia, FlexAutomotive, Gentherm, Grupo Antolin, Hi-Lex, Hanon, JCI, Johnson Electric, ABB, Alstom, BESI, Eaton, ebm-papst, Emerson, Epcos, GE, Grässlin, Hager, Howden, Itron, IVM, Kopp, Kuka, Legrand, Mars Drinks, Minimax
Global Brands Mfg.	New Taipei City, Taiwan	445	286	36	646	22	-31.1%	7,767	3	1.4 M	144	Hitachi, InfoAction, Toshiba, LG, Carrier
Hana Microelectronics	Bangkok, Thailand	443		37	443	33	0.0%	17,500	4	1.3 M	105	Avago, HID, Lumiled, Safenet, Sensata, Synaptics
Neways Electronics Intl. NV	Son, The Netherlands	418		38	410	35	2.0%	2,593	11	1.1 M	21	~760
éolane	Le Fresne Sur Loire, France	410	12	39	520	28	-21.2%	3,300	19	1.2 M	45	Airbus, Alstrom, Areva, Dassault, Orange, Renault, Rolls Royce, Safran, Schlumberger, SFR, Siemens Automotive, Thales, Valeo, Zodiac
Computime	Hong Kong	385	20	40	363	40	6.1%	4,000	4	1.2 M	28	
Topscom	Shenzhen, China	350		41	366		-4.3%	6,000	2	1.6 M	60	Cisco, Huawei, Philips
SVI	Bangkadi, Pathumthani, Thailand	340		42	257	51	32.3%	3,150	9	735,000	30	ABB

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ALL CIRCUITS	Meung Sur Loire, France	316		43	370	38	-14.5%	1,500	3	538,250	22	
Valuetronics Holdings	Hong Kong	313		44	314	46	-0.2%	4,000	2	800,000	22	
LACROIX Electronics	Saint Herblain cedex, France	311		45	293	48	6.0%	3,220	4	430,600	26	250+
Kitron	Billingsstad, Norway	310		46	278	50	11.5%	1,221	6	430,600	15	DiaSorin, HMS Networks, Husqvarna, Kongsberg, Maquet Critical Care, Sensys Traffic
Di-Nikko Engineering Co. Ltd.	Nikko City, Japan	265		47	327	43	-19.0%	3,582	13	698,000	71	Canon
Nippon Manufacturing Service	Tokyo, Japan	261		48	324	45	-19.6%	3,051	9	1.5 M	67	Kyocera Document Solutions, Brother, Ricoh, Panasonic, Zoom Corp.
TT electronics	Rogerstone, Wales, UK	226	553	49	545	26	N/A	1,549	8	1.1 M	30	
SMTC	Markham, Ontario, Canada	221		50	229	52	-3.3%	1,170	4	600,000	28	FICOSA, SpiderCloud Wireless

Note: Unless otherwise indicated, data represents 2015 year-end.

took a minimum of \$221 million in sales to make the Top 50. Earning a spot on the 2015 list was easier than the year before, when the cutoff was \$275 million. Sales growth among companies at the bottom rungs of the Top 50 resulted in a lower cutoff. Despite a decline in the cutoff, 2015 ranked the fifth highest cut-off since 2000 (Chart 2, p. 6).

Ten companies from the 2014 list dropped off the 2015 version. Taiwan-based **Wistron** and Japanese company **Katolec** made the Top 50 for the first time.

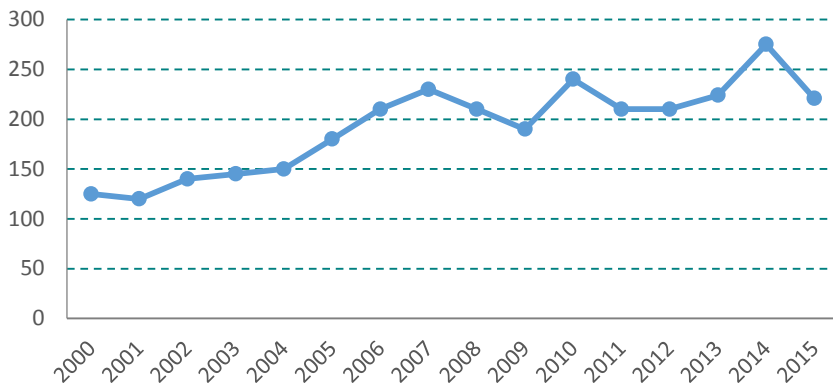
Manufacturing Market Insider, March 2016

Ten departures meant that there were ten additions to the Top 50. Two companies joining the 2015 list are based in North America: **NEO Technology** (Chatsworth, CA) and Ducommun, Inc. (St. Louis, MO). Two providers are based in China, 3CEMS Group and Topscom, and two Hong Kong-based providers are VTech Communications and Valuetronics Holdings. Two providers from Europe, PKC Group (Raahe, Finland) and TT electronics (Rogerstone, Wales, UK), joined the list. Creation Technologies declined to participate in our survey this year opening the door for SMTC in the 50th position..

Counting Down the Top 10

The makeup of the top 10 providers Changed slightly from 2014, with the four top companies (Hon Hai, Pegatron, Flex and Jabil) remaining in the leading position. Sanmina replaced New Kinpo in 5th position, dropping it into 7th position. Celestica moved up a position to 6th place. pushing itself and Celestica down a notch. Wistron placed in the top 10 list by reporting its EMS revenue for the first time and ranked in 8th place. Both Benchmark and Shenzhen Kaifa got knocked out of the top 10 in 2015.

Chart 2: Top 50 Cutoff (Millions USD)



USI raised its position one ranking to 9th position and Plexus entered the top 10 for the first time ever.

Top 10 admission required sales of at least \$2.60 billion, compared with \$2.50 billion for 2014. The top 10 minimum was 4% higher than the year before, making it still harder to break into this group.

For 2015, the top 10 accounted for 90% of Top 50 sales, further indicating how top-heavy the EMS industry has become. The top 10's share remained unchanged from 2012. Top 10 growth came in at 3.4%. In 2015, the top 10, with their scale, enjoyed a growth advantage over the bottom 40 providers in the group. The bottom 40 together produced a 1.4% growth rate, 200 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 16 companies moved up in the standings from 2014. There was more upward mobility in 2015 than in 2014 because many companies achieved the sort of growth necessary to advance in the standings.

Scanfil (27th) jumped 22 places, the greatest advance of any Top 50 provider in 2015. The unit benefited from its acquisition of **PartnerTech** in a cash deal valuing all shares in its Swedish peer at 443 million Swedish Krona (\$52.7 million), a 27 percent premium. **NEO Technology** (22nd) moved up 14 positions, while **Ducommun, Inc.** (24th) climbed by 10 spots in the standings.

As in 2015, a 19 out of 50 EMS companies in the 2015 Top 50 had sales of less than \$500 million. But unlike the previous year, the largest

number of providers resided in the \$300 million to \$499 million bracket. There were more companies in the \$500 million to \$999 million bracket than in the \$1 billion to \$10 billion bracket (Chart 4 below).

Benchmarking Ratios

Top 50 data yield three productivity ratios. One can start with revenue per employee. Employee counts for the 50 companies totaled about 2.1 billion 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 50 providers works out to \$127,409. But this ratio is skewed by the economics of Hon Hai's massive workforce. With Hon Hai excluded, revenue per employee increases to \$154,661, which is well above the 2014 ratio of \$106,296 based on a somewhat different group of 41 companies that also excluded Hon Hai. One factor behind the higher ratio is the addition of Wistron to the Top 50 list.

Top 50 data can also be used to calculate revenue per SMT line. Of the 50 providers, 47 companies reported the number of SMT lines that they operate. Revenue per SMT line for these companies averaged \$113,000, which was higher than the 2014 ratio of \$69,373 million per line computed for a somewhat different group of 38 Top 50 providers. Note that revenue per SMT line is highly

Chart 3: 2015 Growth Rates

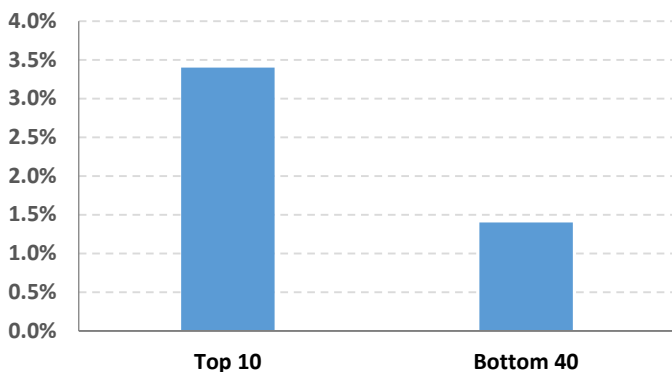
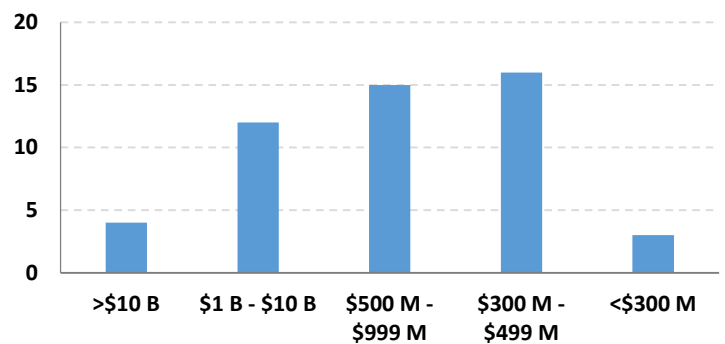


Chart 4: Distribution of Top 50 Providers by 2015 Sales



variable, depending on the speed and productivity of a line, whether it's single or double sided, and the amount of EMS revenue generated by box build.

In conclusion, each year that we perform this survey we receive more cooperation from our customers and non-customers and more accurate information especially with regard to the distinction

between EMS assembly and ODM production, which is quite client-specific. This helps us to track the industry and analyze it product markets.

Research 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.

Euro Exchange Rate Hurts Company Rankings

Europeans got a bit of a bad deal when the euro exchange rate plunged from 1.3297 per 1 USD in 2014 to 1.1096 euro per 1 USD in 2015—a year-to-year drop of almost 20 percent. This in effect, gave the impression that many European EMS firms experienced a drop in sales revenue when, in fact, most had an increase in revenue when measured in euros. Of the top 50 European EMS firms, nearly all companies experienced growth in euro sales from 2014 to 2015 ranging from 2 percent to 141 percent. Across the board, these real gains were wiped out when they converted their sales to USD at the highly negative 2015 exchange rate.

MMI attempted to fix this problem by creating a table that first shows the real revenue figures for top 50 European firms in euros, and their percentage growth rate, then converting 2015 sales at the 2014 exchange rate, then re-ranking the standings. The second-to-last column on the right shows the official ranking using the 2015 euro exchange rate (unfortunately, we have to keep with a consistent system even though it penalizes these companies, a practice that cuts both ways depending on the year), and how the company might have ranked in the top 50 if the 2014 exchange rate were used.

European Companies	Sales Calendar 2015 (€ Millions)	Sales Calendar 2014 (€ Million)	Growth '14-'15 in Euros (%)	2015 (\$USD Million) using 2014 Exchange rate	2015 Ranking in USD	Revised Ranking at 2014 Exchange Rate
ALL CIRCUITS	285	278	2%	379	44	42
Asteelflash	680	532	28%	1,004	23	17
Enics	505	451	12%	671	28	25
eolane	370	391	-6%	491	40	34
Kitron	279	209	34%	371	47	44
LOCROIX	280	221	27%	373	46	43
Neways	377	209	80%	501	39	33
PKC Group	908	469	94%	1,208	16	15
Scanfil	516	214	141%	687	27	24
VIDEOTON	454	385	18%	604	35	28
Zollner	1,175	1070	10%	1,562	14	14

Company News

Sparton and Ultra Electronics' JV Awarded \$53.7 Million Contract

ERAPSCO, the joint venture of Ultra Electronics (Columbia City, IN) and Sparton Corporation (Schaumburg, IL), has received a contract of \$53.7 million for the manufacture of sonobuoys for the United States Navy.

The award is a GFY16 ERAPSCO Indefinite Delivery Indefinite Quantity (IDIQ) contract release for sonobuoy

requirements under ERAPSCO's five-year contract.

The JV will provide production subcontracts in the amount of \$26.1 million and \$27.6 million to Ultra Electronics USSI and Sparton De Leon Springs, LLC, respectively. Production will take place at Ultra Electronics USSI's Columbia City, IN facility and Sparton's De Leon Springs, FL facility and is expected to be completed by September 2017.

Joint venture... **PKC Group** has signed a joint-venture contract with **Anhui Jianghuai Automobile Co.,**

Ltd.'s (JAC) subsidiary Hefei Jianghuai Automobile Co. (Hefei JAC).

The joint venture aims to increase PKC's market share in in China in both medium and heavy duty truck segments by 5 percentage points and expand the business to buses, light trucks, vans, pick-up trucks, and other light vehicles.

The JV will comprise the current wiring harness business of the JAC group, with the aim of gradually taking over other, currently outsourced, wiring systems business. The parties' aim is to develop the JV as a primary supplier for all wiring harnesses to the JAC group.

The 50/50 joint venture is to be accomplished through a new company that will be established by Hefei JAC and PKC in the city of Hefei in Anhui province in China, with an equity value of €14 million, as reported by *Evertiq*.

Foxconn, Sharp Agree to Trim Bailout by ¥100B

iPhone assembler **Hon Hai Precision Industry** and troubled Japanese electronics giant **Sharp** have agreed on a bailout that is ¥100 billion (\$884 million) smaller than originally planned, according to *Nikkei Asian Review*.

The two sides, together with Sharp's main creditors—**Mizuho Bank** and **Bank of Tokyo-Mitsubishi UFJ**—have agreed that Foxconn will cut its original ¥489 billion offer for newly issued Sharp stock by around ¥100 billion, the sources said, with Foxconn also to put down a ¥100 billion deposit upon the signing of the agreement. Foxconn previously promised to provide ¥660 billion in total to Sharp for financial support, including the stock purchase.

The two sides are expected to hold a press conference on April 2 to officially announce the deal in Tokyo, according to sources.

Contract Wins... **Stadium Group (UK)** has been awarded a substantial new supply contract by **Trak Global**, a European provider of vehicle telematics solutions for the insurance, rental, fleet, and automotive industries.

This new contract, worth £5 million, builds on the existing partnership between the two companies and will see Stadium continue to produce Trak Global's usage-based insurance (UBI) units, which are fitted to vehicles to monitor individual driving styles.

Onrox Group for Sale

Midway Holding, the owner of Swedish EMS provider **Onrox Group**, has decided to sell a number of companies.

Midway's board of directors has decided to release capital by selling a number of companies, and instead allocate capital to **Haki** (Sweden). Among the companies that might see a new owner is EMS provider **Onrox Group**, as reported by *Evertiq*.

Facilities closing... German cable and cable harness manufacturer **Leoni** is closing its facility in Valaská Belá (Slovakia), which currently employs 60 people.

The company is to transfer part of its production to another plant in Serbia, local media report. The transfer is planned in several steps to be completed June 30, 2016.

The other Slovak locations (Trenčianska Teplá and Ilava) remain on an expansion course. Leoni is currently looking to hire several hundred new employees and will offer positions to the employees in Valaská Belá... **Sparton Corporation** (Lawrenceville, GA) closed its facility in Lawrenceville and has been auctioning off its SMT equipment, as reported by *XLINe Asset Management*.

Expansion... The Taiwanese manufacturer of calculators and communication electronics, **Kinpo Electronics**, has opened its new facility in the Philippines.

The new 143,100-square-meter factory represents a \$65.1 million investment. The company will complete construction of another 133,600-square-meter facility worth \$54.25 million in the second quarter, according to a report in *DigiTimes* citing Kinpo president Simon Shen.

The completed facility—which will mainly produce calculators—has an annual production capacity of 60 million calculators and employs about 2,700 workers. The second facility will manufacture smart home appliances, as reported by *Evertiq*... **San Francisco Circuits** announced its expansion to a new San Diego, CA office. The new location was selected after management noticed an increase of R&D in southern California. The new location complements the company's ability to provide stronger, more effective and efficient service to its existing customer base. The new San Diego office will work closely with San Francisco Circuits' headquarters in San Mateo, California.

Pegatron Moves Dutch Operations to Czech Republic

Taiwanese electronics manufacturing giant **Pegatron** is closing its operations in Breda, the Netherlands. The site has been running for only about two years and now the company is pulling the plug.

The company will move the operation it had established in Breda to Ostrava in the

Czech Republic. What this means is that 500 jobs will disappear from the region, along with the company. Most of the people working at the Pegatron unit were hired via staffing agencies, according to a report in *DutchNews*.

The company has not communicated any reasons behind the decision.

New division... **Acromag, Inc.** (Wixom, MI), a producer of industrial electronics and measurement and control products, has formed a new contract manufacturing division at its 35,000-square-foot facility in Michigan.

The Electronic Contract Manufacturing Division will be led by Acromag's Business Development Manager, Stacy Z. Moore. This division offers PCB assembly to the commercial, industrial, aerospace, defense, telematics, and automotive industries.

The new division is seen as a natural expansion of the company's current design and manufacturing Process Automation and Embedded Solutions divisions.

Foxconn to Build Tech Park, Creating 70,000 New Jobs

Foxconn, the Taiwanese EMS giant, is planning to invest billions in a new technology-focused industrial park in southern China.

Construction of the planned industry park—which will be located in Nanning, Guangxi province—will begin during this year, but won't be operational until 2020. The park is expected to create about 70,000 jobs, according to a Reuters report citing a Chinese local government website.

No specific figure was given, but the venture was described as a 100-billion-yuan investment (about \$15.34 billion), reported *Evertiq*.

New orders... Electronics manufacturer and software solution provider **Orbit International** (Hauppauge, NY) recorded consolidated bookings for both its Electronics and Power Groups of \$2,800,000 for the month of February 2016, as reported by *Evertiq*... **Quanta**

Computer (Taiwan) has obtained OEM orders for US-based **EMC's** VxRail storage equipment based on hyper-converged infrastructure, which integrates servers with storage devices to minimize dimensions, according to Taiwan-based supply chain makers. VxRail will replace hyper-converged infrastructure-based VSPEX Blue, which was produced by **Foxconn Electronics** on an OEM basis, with small-to medium-sized enterprises the target customers. Foxconn is still EMC's main OEM for storage equipment, the sources indicated.

Quanta, through its wholly owned subsidiary Quanta Cloud Technology, has been competing for orders for direct-sale (white-box) servers used in cloud computing data centers. Through cooperation with Quanta, EMC can combine storage devices and servers to tap the business-use private cloud market. Cooperation with EMC will help Quanta compete for orders for data center servers, as reported by *DigiTimes*.

Partnerships... **Ericsson** and **Quanta Computer** have entered into a strategic partnership to scale the design, development, and manufacturing of an expanded next-generation data center solution based on the Ericsson Hyperscale Datacenter System 8000.

To accelerate the adoption of the next-generation data center solution, Ericsson has joined the Open Compute Project, focusing on hardware design for scale-out data center solutions.

Furthermore, Ericsson will explore how to leverage its existing global services capabilities to deliver services for direct Ericsson customers and for customers with Quanta-led sales.

Wistron, Inventec See Better-Than-Expected Shipments in February

Wistron (Taiwan) shipped 1.1 million notebooks, 800,000 desktops, 500,000 monitors, 300,000 LCD TVs, and 130,000 servers in February, while fellow maker **Inventec** (Taiwan) shipped 1.25 million IT devices, including notebooks and all-in-one PCs, in the month, up from 1.2 million units in January.

Wistron's notebook shipments in February

were flat compared with January's. But it expects its March notebook shipments to increase by a few hundred thousand units, or a double-digit percentage from a month ago. The company's shipments in the first quarter are expected to be inferior to those in the same quarter a year ago, but shipments in 2016 will be flat from 2015.

Inventec's notebook shipments are expected to grow in March and its non-PC product shipments are also expected to perform strongly, thanks to smart phone orders from China-based **Xiaomi**.

As for revenues, Wistron had NT\$40.84 billion (US\$1.24 billion) for February, down 2.12% month on month and 10.06% year on year, while Inventec had NT\$28.77 billion, down 4.42% month on month, but up 12.28% year on year.

Pegatron Plans to Establish Plants in India, Says CEO

Pegatron Technology (Taiwan) CEO Jason Cheng, during an investors' conference on March 17, revealed that the company has plans for India that include establishing factories there.

Cheng said that 2016 will be a challenging year for Pegatron, but the company still expects its second-half performance to be better than in the first. The company's performance in the first half of 2016 is expected to be similar to that in first-half 2014.

Pegatron is optimistic about the virtual reality (VR) and augmented reality (AR) markets, but expects from them only limited contributions to revenues in the short term.

For the next 3–5 years, Pegatron will focus on developing Internet of Things (IoT) and "big data" products. The company used its capex to focus on expanding facilities in 2015 and will push equipment installation and replacement in 2016. With sufficient capacity in the first half, the company will not start purchasing new equipment until the second half, reports *DigiTimes*.

Executive changes... **Ryder Industries, Ltd.**, the Swiss-owned EMS provider with manufacturing facilities in China, announced that after yet another

year of double-digit growth, it will deploy a new management team to help with the growing needs of the company and its customers. Henry Wu has been promoted to Chief Operating Officer. His duties will now include Site Operations (at the Bao An and Xin Feng campuses), the four Commercial Business Units, corporate Materials Management, Engineering & Quality, and Strategic HR.

Ducommun to Divest Miltec Corporation

Ducommun, Incorporated (Carson, CA) announced that it has entered into a definitive agreement with **General Atomics** (San Diego, CA) to sell the company's Miltec Corporation subsidiary for \$14.6 million in cash, subject to post-closing adjustments.

Miltec provides engineering, technical, and program management services principally to the US Department of Defense and US intelligence agencies for advanced weapons systems and military defense systems. The business had sales of approximately \$28.2 million in 2015. The completion of the transaction is subject to customary closing conditions. KippsDeSanto & Co. acted as financial advisor to Ducommun.

Acquisitions... **Ingram Micro** has acquired Greenville, South Carolina-based **NETXUSA**, a unified communications and collaboration value-added distributor focused on VOIP solutions and IP phones.

NETXUSA complements Ingram Micro's established UCC business, bringing a strong portfolio of IP communications products from technology companies, including Cisco, Digium, Edgewater, Polycom, and Yealink.

NETXUSA's management team and associates are expected to remain in place, operating as an integrated division of Ingram Micro. The company is expected to contribute more than \$125 million in annual revenue and be modestly accretive to 2016 non-GAAP earnings... **Schouw & Co.** has acquired Danish EMS firm **GPV International** at the price of DKK400 million.

Based in Aarhus, Schouw & Co. owns the industrial enterprises BioMar, Fibertex Personal Care, Fibertex Nonwovens, and Hydra/Specma. With the GPV acquisition, the company expands its business portfolio to include EMS. GPV, which is headquartered in Tarm, has production facilities in Tarm and Aars, and in Bangkok, Thailand. GPV is the leading provider of EMS (electronics manufacturing services) in Denmark and plays a significant role in the northern European market. Jens Bjerg Sørensen, president of Schouw & Co., aims to expand GPV's global presence.

Today, the business is represented in Denmark and Thailand, and according to Sørensen, it would be natural to become established on the other side of the Atlantic in order to be nearer to the US market.

Inventec, Advantech Set Up Joint Venture

On March 22, **Inventec** and **Advantech** jointly announced the establishment of a joint venture, AIMobile, for R&D, production, and marketing of industrial wireless mobile devices for retail, automotive, and medical applications at an initial paid-in capital of NT\$1 billion (US\$30.3 million). Inventec will hold a 55% stake and Advantech 45%. Inventec chairman

Richard Lee pointed out that the joint venture will become a strong backup for Advantech and an important step in Inventec's advance toward becoming an Internet of Things (IoT) company.

Currently, AIMobile will mainly focus on product R&D, and Inventec will have 30 engineers stationed in the new company initially to work on developing handheld wireless devices, as reported by *Evertiq*.

Brazil Notebook Market Suffering Inventory Pile-Up

With a 30% year-on-year drop in notebook sales in 2015, Brazil's notebook retail channel is suffering from a serious inventory pile-up. Most brand vendors' orders for the country have turned weak since the fourth quarter of 2015, and several have even stopped pulling in orders for January and February. The issue has caused ODM/OEMs to halt most of their notebook production in Brazil.

Notebook vendors are closely monitoring channel inventories in Brazil and are prioritizing inventory digestion.

Notebook brand vendors including **ASUSTek Computer**, **Acer**, and **Samsung Electronics** have been pushing into Brazil's notebook market over the past few years, while ODM/OEMs such as **Foxconn Electronics** (Hon Hai Precision Industry), **Quanta Computer**

and **Compal Electronics** have also established production lines in the country to satisfy client demand.

With a weakening economy, rising unemployment rate, and inflation, Brazil saw demand for notebooks drop seriously in 2015 and demand is expected to stay weak in 2016. The issue is unlikely to be resolved until 2017, as reported by *DigiTimes*.

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