

# Manufacturing Market <sup>TM</sup>

# INSIDER

inside the contract manufacturing industry

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## First-Half M&A Up by 44%

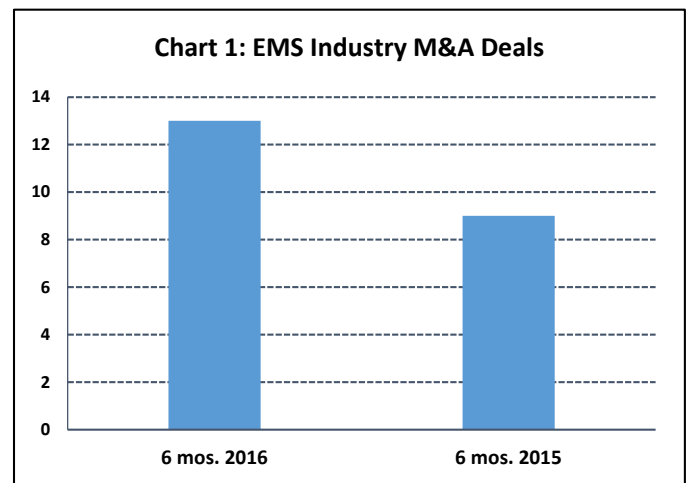
The number of M&A deals done in the EMS industry increased in the first half of 2016 versus the year-earlier period. According to *MMI's* count, 13 M&A transactions closed in the EMS industry during the first six months of the year, up from nine in the first half of 2015 (Chart 1). That's an increase of 44%. If deal making continues at this pace in the second half, then 2016 will go down as the busiest year for industry M&A since 1995.

What's fueling the growth in M&A activity? Industry data presents a strong argument that the uptick in M&A activity has been fueled by corporations' quest for growth. Rather than spin their wheels trying to do it all internally, it's easier to buy another company's existing products, profits, and market share. The availability of debt financing at historically low rates is also a boon for M&A activity, especially in the healthcare and tech sectors. In the tech sector, it's large organizations that are using their significant liquid assets to continue buying up the products and intellectual property of their smaller competitors.

Feeling pressure to improve efficiencies and profitability despite the slow economic recovery, companies turn to M&A as a means for achieving previously unattainable growth. Also, despite a recent increase, interest rates still remain at historically low levels, and this rate hike is unlikely to increase corporate borrowing costs dramatically, or significantly impact M&A in a negative way.

First-half transactions were up from a year earlier in two out of five categories tracked in last year's analysis of the period (Chart 2, p. 2). Service or supply chain extension deals continued to be by far the most popular type of M&A transaction. During the first half, seven such deals went through, up 40% from five transactions closed in the year-earlier period.

Obviously, more providers were interested in buying a competitor operation than acquiring a capability. During a period of weak demand when growth is hard to come by, acquiring the revenue and customers of a competitor can do



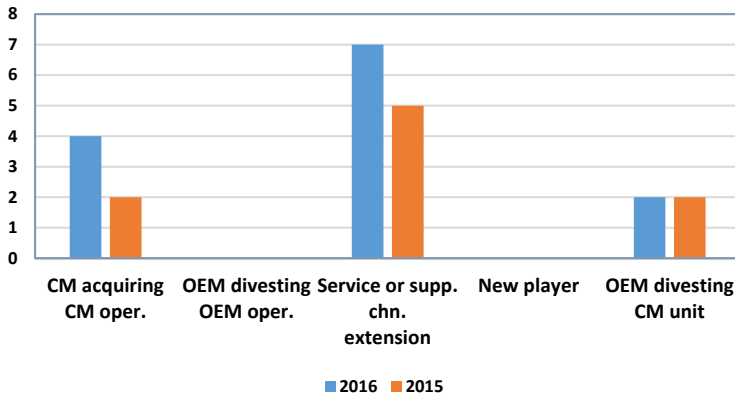
wonders for the top line. By contrast, capability deals may be less attractive when demand is soft if they don't add a significant amount of revenue. And, as mentioned earlier, customers often pull back in a weak-demand environment rather than ask for new capabilities.

The seven capabilities deals that closed in the first half of 2016 include **Foxconn Interconnect Technology** (Taiwan) acquiring US-based **Avago Technologies**; **Ingram Micro, Inc.** (Irvine, CA) buying Greenville, SC-based **NETXUSA**; and **Schouw & Co.** (Denmark) acquiring the Danish EMS manufacturer **GPV International**.

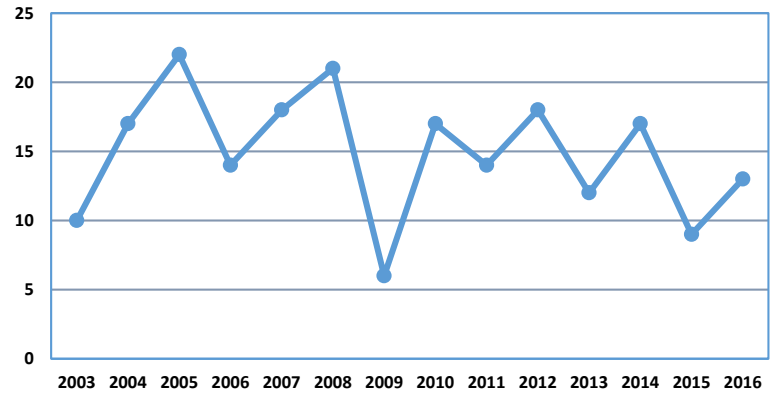
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**Chart 2: Deal Breakdown for First-Half 2016 versus First-Half 2015**



**Chart 3: First-Half Consolidation Deals Over Time**



Mexico-based **Tekmart Integrated Manufacturing Services (TIMS)** has continued its expansion in Mexico through the acquisition of the **Sanyo** plastics operation in Tijuana; Foxconn acquired Hong Kong-based **TeleEye Holdings**; **Cemtrex, Inc.** (Farmingdale, NY) has completed the acquisition of German electronics manufacturing company, **Periscope**, located in northern Germany. **Nokia** has acquired health and fitness-focused gadget maker **Withings** (France) for €170 million.

Acquiring an EMS operation of another provider continued to be the second most popular type of M&A transaction. During the first half, four such deals went through, up from two transactions closed in the year-earlier period.

As has been written here before, these deals can offer geographic expansion, complementary customers, diversification, more revenue, increased capacity, and additional capabilities. Depending on the buyer's needs, one or more of these benefits will act as motivation for a deal.

The largest of the first-half CM operation purchases was Foxconn's acquisition of the Japanese electronics manufacturer **Sharp** for USD2.5 billion (JPY300 billion). In addition, UK-based EMS provider **Chemigraphic** acquired **CRS Electronics, Ltd.**, a Hertfordshire-based contract manufacturing business; EMS provider **SVI Public Company, Ltd.** acquired Austrian EMS provider **Seidel Electronics Group Companies**;

and **PARPRO** (Carlsbad, CA) acquired privately held **Cal Quality Electronics (CQE)**, based in southern California.

All of the acquisitions of EMS operations resulted in the loss of an independent EMS provider, defined as consolidation. So out of the four acquisitions of EMS activities, all were consolidation deals. In comparison, two consolidation deals occurred in the first half of 2015. The year-over-year increase amounts to 100%, a significant increase in this kind of consolidation. (The other kind results from an EMS provider going out of business.) Still, first-half consolidation activity has fluctuated considerably over the last 10 years.

OEM divestitures fall into a third deal category. Having peaked in popularity at the turn of the century, OEM divestitures have fallen out of favor for the most part in the EMS industry. But they haven't disappeared. Two transactions of this kind closed in the first half with **Ducommun, Inc.**'s sale of the Pittsburgh operations of **LaBarge, Inc.**, which it had acquired in 2011, to **Intervala LLC** for \$38.5 million. The Pittsburgh-based manufacturing operation had been part of a larger deal made for LaBarge, Inc., but in the intervening years, Ducommun had decided to sell it off. The reason for sale is a result of Ducommun's ongoing strategic portfolio review. Exiting this noncore business strengthens Ducommun and focuses the organization on being a leading provider of unique, value-added

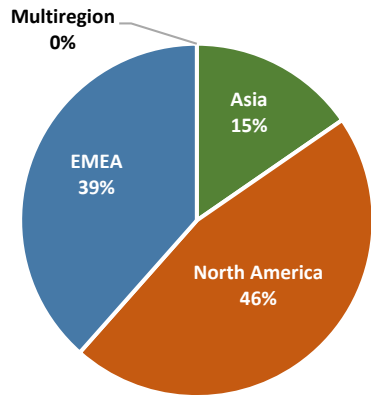
solutions and technologies to the aerospace, defense, and related markets. Ducommun also divested another subsidiary, **Miltec Corporation**, to **General Atomics** for \$14.6 million in cash to better focus on its core business.

Two other categories in *MMI*'s system for classifying deals were not active in the first half of 2016. No new players emerged from the sale of a manufacturing business, and no OEMs sold off an EMS unit. In the year-earlier period also, there were no transactions in either category (Chart 2).

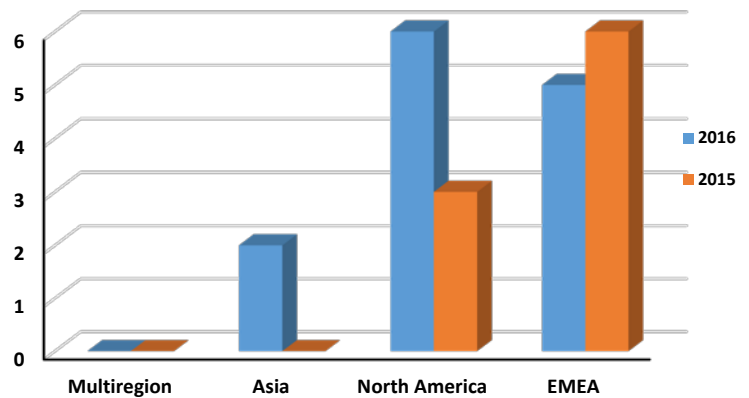
Of the 13 transactions closed in the first half, six resulted in the purchase of a North American operation; five targeted operations in the EMEA (Europe/Middle East/Africa) region; and two called for the acquisition of a unit in Asia (Chart 4, p. 3). The number of deals done increased substantially in North America and Asia compared with the first half of 2015. However, deals in the EMEA region decreased somewhat from the year-earlier period (Chart 5).

Of course, there are alternatives to making an acquisition when a provider needs to add a capability or expand its geographic reach. The provider can form an alliance, take a minority stake in a partner, or enter into a joint venture. Such partnerships can also give a company access to technology that it covets. During the first half, providers made seven such arrangements, similar to the year-ago period (Chart 6).

**Chart 4: Percentage of Deals by Target's Region**



**Chart 5 : Deal Breakdown by Target's Region Comparing First-Half 2016 versus First-Half 2015**



Though the number of partnerships was the same, the current number of partnership deals is well below the current total deal count (Chart 7). Partnerships may save money, but they're no substitute for a fully integrated operation.

Over the years, providers have entered into alliances with engineering firms to jointly offer design and manufacturing. The first half of 2016 was no different, with two EMS players, **Quanta** and **Inventec**, teaming up with design partners. Also, Swedish EMS provider **Hanza** signed a cooperation agreement with **Free2move** regarding industrialization and manufacturing of Free2move's current and future products.

An EMS provider can also use an alliance to gain access to back-end capabilities. To that end, EMS provider **Integrated Micro-Electronics, Inc.** has entered into a value-added reseller partnership with **Macnica Europe GmbH**. **Sanmina Corp.** collaborates with **Nokia**. Sanmina will be a key delivery partner for Nokia's Data Center Services. Sanmina will provide extensive services, from worldwide delivery support to managing complex, multivendor supply chains.

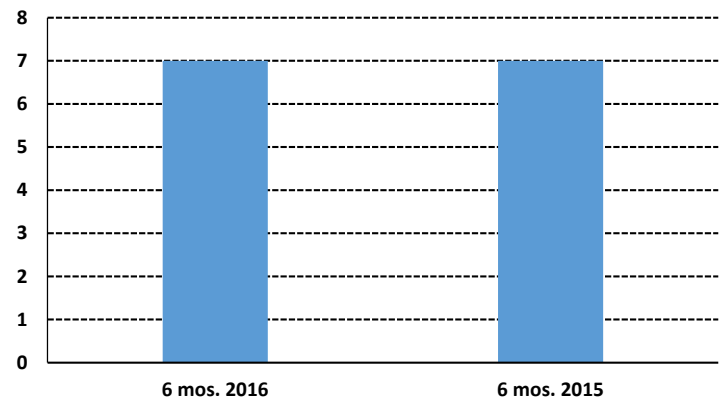
Another familiar strategy is to find a partner that will provide you with manufacturing in a region that you want to enter. During the first half of 2016, two EMS companies formed partnerships with this goal in mind. An

alliance between **LACROIX Electronics** and **MicroEJ** will accelerate the development and production of IoT (Internet of Things) devices and embedded electronic products for the European market.

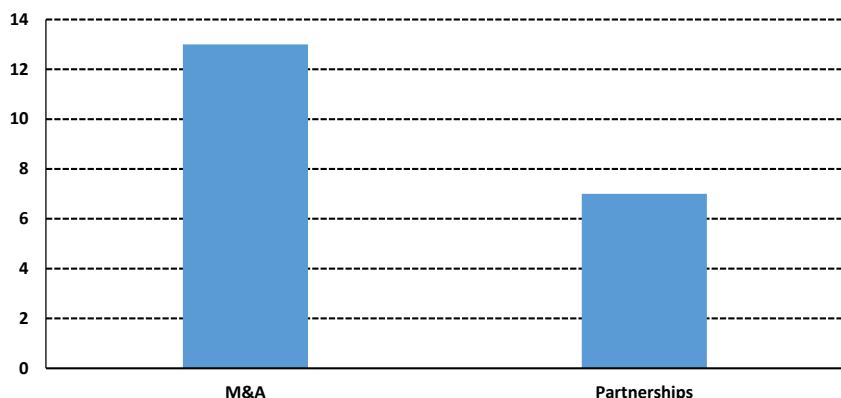
Finally, **Vexos** and **CMS Electronics** entered into a strategic partnership agreement that strengthens the global reach and scale of each company and gives customers additional reach to more easily start locally and scale globally.

*Publisher's note:* First-half 2016 statistics published here should be treated as preliminary. It is possible that *MMI* will discover additional first-half transactions after this article is published. Also, be advised that this analysis excludes private equity deals as well as divestitures by EMS providers unless the operations sold are retained within the EMS industry.

**Chart 6: EMS Industry Alliances, Equity Partnerships, and Joint Ventures**



**Chart 7: First-Half M&A versus Partnerships**



## Some Quarterly Results

**Jabil Circuit, Inc. (JBL).** JBL reported results of \$4.31B/\$0.17. Revenues were down -1.1% y-o-y and -2.1% q-o-q; on a segment basis, DMS came in at \$1.45B (down -10% y-o-y; down -15% q-o-q), while EMS came in at \$2.85B (+4% y-o-y; +5% q-o-q). Operating margins came in at 2.0%, which was in line with expectations; on a segment basis, DMS operating margins were -0.9% and EMS margins came in at 3.5%.

End-Market Analysis: Diversified Manufacturing Segment (DMS, 34% of revenue) revenues were down -10% y-o-y, at \$1.45B. The overall revenue miss was due to weakness related to **Apple**. DMS margins were at -0.9%, which was down -760 bps q-o-q. DMS was guided to \$1.5B, down -20% y-o-y. For the full year, JBL expects DMS to be ~\$7.2B, up ~1%, down from prior expectations calling for +5% y-o-y growth in DMS. AAPL was a 24% customer in FY15, up from 18% in FY14 and up 50% y-o-y. Electronic Manufacturing Segment (EMS, 66% of revenue) revenues were up 4% y-o-y, to \$2.85B. EMS was guided to \$2.75B, flat y-o-y. For the full year, JBL expects EMS to be \$11B. Operating margins came in at 3.5%, which was up 40 bps q-o-q.

Balance Sheet and Cash Flow: JBL generated \$416M in CFO for the quarter, which was also impacted by \$212M in CAPEX, causing FCF to come in at \$203M. The company guided CAPEX to \$850M for FY16. In addition, Jabil announced the approval of \$400M in a stock repurchase program.

JBL provided August-quarter guidance at \$4.15-4.35B/\$0.15-0.35. From a segment standpoint, JBL is calling for \$1.5B (-20% y-o-y) in revenue from DMS and \$2.75B (flat y-o-y) from the EMS segment. The company reduced its full-year FY16E revenue guide from \$18.5B to \$18.2B and reduced EPS from \$2.12 to \$1.85, with revenues of ~\$7.2B in DMS and ~\$11.0B in EMS. This implies core operating income at \$632M, and margins of 3.0-3.5%.

**Pegatron.** 2Q16 revenue was merely NTD224.984B (-12.25% q-o-q; +3.24% y-o-y) due to the following: a) the company's typical low season arrived in 2Q16; and b) iPhone product transition. However, the ramp-up momentum of consumer electronics strengthened in June, and gradual shipment of iPhone 6S inventory improved Pegatron's JUN16 revenue gradually. Its GM might also improve notably and catalyze Pegatron's earnings recovery. 2Q16 net profit is estimated at NTD4.156B (+1.23% q-o-q), or EPS of NTD1.61.

As the peak sales season of IT products and consumer electronics arrives during summer vacation, downstream clients' pull-in momentum may gradually strengthen in 3Q16. Regarding communications electronics, due to the launch of iPhone 7 at the end of 3Q16, Pegatron's revenue/earnings may recover significantly and hit the FY16 peak in 4Q16. FY16 revenue is estimated at NTD1.148834T (-5.35% y-o-y). The slight y-o-y decline is mainly due to poor iPhone 6S sales in 1H16. FY16 net profit is forecasted at NTD21.263B. FY16 EPS is forecasted at NTD8.25. As shipment of the communications product line may resume normalcy in FY17, FY17 EPS is estimated at NTD9.34.

Regarding its future operating strategies, Pegatron's communications segment may also manufacture **ASUSTek's** Zenfones and China-based **Letv's** handsets in addition to **Apple's** iPhone OEM. Consequently, the segment may continue generating stable growth momentum for Pegatron. As for its networking communications devices, Pegatron's relationship with downstream clients is more stable. Hence, the networking device product line may still contribute steady earnings to Pegatron annually. Regarding its NB product line, since the company's second largest client **Toshiba** withdrew its ODM orders from Taiwan, Pegatron's overall NB shipment is likely to be impacted in FY16. However, as Pegatron's supply share in NB ODM for ASUSTek has increased, the segment's FY16 performance may stay flat y-o-y. As for the consumer segment (including game consoles, tablets, etc.), related

shipments have declined in recent years due to gradually weakening end-market consumption. However, the segment is expected to post a slight improvement in earnings in 2H16 when its clients launch new products.

**Plexus (PLXS).** PLXS reported Q3 2016 sales of \$668M and non-GAAP EPS of \$0.82, an operating margin of 4.9%, and improvements quarter over quarter and year over year on cost cuts and productivity gains.

Three of PLXS's four business segments strengthened during the quarter and grew year over year, with Defense/Security/Aerospace (D/S/A) performing in line. Two new large customer ramps drove strength in Industrial/Commercial (I/C), offsetting a flat semiconductor market. New program ramps in Healthcare/Life Sciences (H/LS) helped balance headwinds with three key customers. Weaker demand weighed on both D/S/A and Networking/Comm (N/C) in Q3 2016, with better trends expected in D/S/A in Q4 and in FY17 for N/C.

Looking forward to its fiscal fourth quarter of 2016, management is guiding revenue of \$655-\$685 million as it anticipates that new program ramps in its Industrial/Commercial and Defense/Security/Aerospace market sectors will offset end-market weakness in its Networking/Communications sector. At this revenue level, with continuing strong operating performance, it expects diluted EPS in the range of \$0.76 to \$0.84 for the fiscal fourth quarter, before any restructuring or special items. Productivity improvements and a better business mix returned operating margins to management's targeted 4.7-5.0% range, where they are expected to remain in Q4 and FY17. PLXS continues to deliver solid results and has done a good job of returning profitability to long-term targets.

The industry is dependent on OEM sales, which are driven by the health of the overall macroeconomic environment. Positive catalysts include an improving networking market, faster cost improvements, and significant new deal wins. Negative risks include the loss of a top customer, deteriorating end markets, and increased competition.



### Samsung Invests in a 2% Stake in BYD

**Samsung Electronics Corp. (SEC)** has invested some 3 billion yuan (\$450 million) for a stake in the Chinese automaker **BYD Co., Ltd.** *Reuters* reports that Samsung has invested in a stake in the Chinese automaker and rechargeable batteries company BYD Co., Ltd. through the Samsung subsidiary Shanghai Samsung Semiconductor. Samsung ownership amounts to some 1.92 percent.

Of note, this is the second strategic investment since SEC invested \$110M to acquire around a 3% stake in **Sharp** in March 2013. SEC was Sharp's second biggest customer and SEC wanted to secure high-quality large-size panels (60"+) from Sharp's Gen 10 Sakai plant. SEC's investment in BYD is much more important, given that it is its first footprint into the largest EV maker globally.

This step will provide access to the electric vehicle supply chain (know-how/customer base) as well as entry into the Chinese market (the largest EV market globally). SEC is likely to leverage its electronic product line-up (semiconductors, display panels, MCU, sensors, etc.) and it could provide an opportunity for Samsung Electro-Mechanics's auto components (MLCC and cameras). However, battery supply seems a distant opportunity at the moment, given that BYD clearly tries to internalize battery production.

### MC Assembly Inks New Contract with United Electric Controls

**MC Assembly** (Melbourne, FL), an EMS provider, announced that it has signed a new manufacturing contract with Boston-based **United Electric Controls**.

MC Assembly will manufacture custom electronics for the international company, which has manufactured durable and reliable products for the oil, gas, chemical, petrochemical, water,

wastewater, and power industries since 1931.

### Rocket EMS Purchases Fortus 3D Production System from Stratasys

**Rocket EMS Inc.**, a Silicon Valley-based full-service EMS supplier, announced the purchase of the Fortus 3D Production System, a 3-D printer that allows prototype design parts to be created faster and at a lower cost than with traditional machining, resulting in more design iterations and a more refined end product.

According to Spencer Hall, Rocket EMS's Business Development Manager, the company purchased the printer to expand its capabilities. For line production, the Fortus 3D Production System will allow its fixtures to be designed and produced in-house, reducing tooling costs and lead times.

### Firstronic Wins Frost & Sullivan Operational Excellence Leadership Award

**Firstronic** (Grand Rapids, MI) was recognized by Frost & Sullivan's Manufacturing Leadership (ML) Council as a winner of the Operational Excellence Leadership Award at its 2016 Manufacturing Leadership Award Gala held in Carlsbad, CA.

Firstronic's VP of Finance, Supply & IT, Wally Johnson, accepted the award. Other award winners included Dow Chemical, GE Global Research, and The Boeing Company.

### NEO Tech Buys Flex's Valencia Microelectronics Unit

**Flex** has sold its high-mix microelectronics business unit in Valencia to **NEO Tech** (Chatsworth, CA) (NATEL Engineering).

Valencia supports complex, high-reliability products serving the medical and aerospace and defense markets. The 140,000-square-foot site has three SMT lines and estimated revenues in the range

of \$50 million a year. Flex acquired the former **Stellar Microelectronics** site in May 2012.

*Relocations...* **Keystone Electronics Corp.**, now located in Astoria, NY, has been approved for an economic development compact that will allow it to relocate to a 48,759-square-foot building at 50 Denton Avenue and a 21,000-square-foot building at 2040 Jericho Turnpike, both in New Hyde Park. The compact was approved by the Industrial Development Agency (IDA) board at its meeting on June 28. Keystone, which plans to spend more than \$8.2 million to purchase one building, lease the other, and renovate both properties, considered relocating to New Jersey or the Carolinas. Renovations to the buildings are expected to generate 15 construction industry jobs. This relocation project is projected to have a positive economic impact of \$653 million on the Nassau County economy and a net tax benefit to the county and other taxing jurisdictions of \$1.4 million. Keystone, currently located at 31-07 20th Road and 19-23 Steinway Street, both in Astoria, is one of several New York City-based businesses that have been solicited by the IDA and have relocated to Nassau County in recent years.

### Foxconn-Incubated Ceewa Launches Sports Drone

**Ceewa Intelligent Drones Technology**, based in Nanjing in eastern China, is a start-up cultivated by an incubation center jointly established by **Foxconn Electronics** and China's **Alibaba Group**. It has launched its first sports drone. Foxconn helped in product development and production. Ceewa is developing a second-generation model, also with Foxconn's assistance, according to industry sources.

Ceewa raised about CNY5 million (US\$748,816) in one month via Taobao's fundraising platform in September 2015 and later borrowed over CNY10 million from China-based F&G Venture in January 2016.

## Kimball Acquires Assets of Aircom Manufacturing

Jasper-based **Kimball Electronics** has purchased Indianapolis-based **Aircom Manufacturing, Inc.** two months after buying a subsidiary of that firm, in two deals totaling \$11.8 million and involving 165 employees.

Kimball Electronics paid \$3.5 million to acquire Aircom's 80,000-square-foot manufacturing facility on the northeast side, along with its production equipment and inventory and certain of the company's liabilities. Kimball also hired Aircom's 100 employees, as reported in the *Indianapolis Business Journal*.

*Partnerships & Alliances...* **Tessera Technologies** subsidiary **Invensas Corporation** (San Jose, CA) and EMS provider **Jabil** (St. Petersburg, FL) have completed the first phase of qualification of Invensas's Bond-Via-Array (BVA) interconnect technology. Jabil's interest stems from a desire to address customer requirements to mount fine-pitch stacked packages to printed circuit boards (PCBs) with high yield and high throughput. In order to optimize the PCB assembly process of BVA-based packages for high-volume production and ensure a complete manufacturing ecosystem, Jabil will also collaborate with **Fuji Machine Mfg. Co.** The two companies are well suited to make significant contributions in the form of novel and proprietary PCB assembly processes.... **Brighter** (Sweden) has entered into a partnership with **Sanmina** (San Jose, CA) to produce the first generation of Actiste, a connected diabetes device that allows users to monitor blood sugar, inject insulin, and log blood sugar levels and insulin doses in a single device. Sanmina's experience in producing advanced medical devices, including millions of diabetes care tools, was an essential criterion for Brighter when selecting its manufacturing partner. Sanmina's product launch and manufacturing capabilities in Sweden, global footprint, ISO 13485-certified manufacturing capabilities, and

ability to scale were also key considerations.... **Flex** (Singapore) and **Aito** (Finland), a supplier of haptic interface technology, have partnered to enhance the automotive user experience. The companies aim to achieve this by embedding touch sensors with button-like tactile feedback into automotive applications such as overhead consoles, steering wheel controls, and other vehicle interior applications. Flex's extensive global footprint and multi-industry sketch-to-scale expertise makes it the ideal partner for Aito.... US-based audio company **Bose Corporation** and **Flex** have reached an agreement to expand their existing partnership. As part of the new agreement, ownership and operation of Bose's manufacturing and development operations in San Luis, Mexico and Penang, Malaysia will transfer to Flex, and Flex will assume current and planned Bose production in both facilities.

## Foxconn Takes Over Microsoft's Vietnam Phone Factory

According to reports, **Foxconn** has—via one of its subsidiaries—acquired 100% of **Microsoft Mobile**'s unit in Vietnam for \$22 million.

The Taiwanese EMS giant will use the manufacturing facility to produce smartphones and feature phones in the country, according to a *DigiTimes* report.

The actual buyer of the Microsoft plant is **Chief Expertise Limited**, a unit under **FIH Mobile**, reports *Deal Street Asia*.

*Contract Wins...* **IEC Electronics** has received a \$3.7 million contract from a strategic aerospace and defense customer with revenues in excess of \$700 million. IEC Electronics will manufacture guided missile firing system components that are utilized by a top US government prime contractor. The one-year contract value represents a greater than 50% increase in size over the company's 2015 contract award with this customer.... Swedish EMS provider **Hanza** has been commissioned to implement a new manufacturing solution for Norwegian

**RVM Systems AS**. The assignment was obtained after a MIG analysis—that is, a process of analyzing the customer's manufacturing process and tailoring a new production solution. The estimated value of the order amounts to more than SEK40 million annually (€4.23 million). Production is expected to commence in the third quarter of 2016.

## Foxconn to Set Up Sharp Assembly Lines in Taiwan

EMS giant **Foxconn** is planning to assemble **Sharp**'s products in Taiwan following its acquisition of Sharp. Foxconn will set up assembly lines in Taiwan in order to roll out Sharp products in the local market, according to a *DigiTimes* report citing industry sources.

The new Sharp Taiwan venture is, according to the report, expected to have significant impact on the local household/appliance market.

The unit will focus on selling household appliances, including TVs, refrigerators, air cleaners, and dehumidifiers.

*Facilities expansion...* Finnish **Scaniafil** has decided to expand its operations in Sieradz, Poland. By the end of 2017 the size of the plant will be doubled. The company has acquired the required land, and the design of the 8,500-square-meter expansion of the current building has already been started. In addition to the production facilities, the investment covers significant machinery and equipment for electronics manufacturing, which increases the plant's SMT capacity and boosts the assembly of box build products. Another objective of these investments is to improve the efficiency of the plant by, for example, streamlining internal material flows.... **Kitron** has officially opened its upgraded facility at Kilsund in Arendal, Norway. Over the past months, Kitron's operation in Arendal has been moved from a leased facility at Hisøy to the Kilsund plant, which it owns. Kitron has invested close to NOK50 million (about €3.34 million) in upgrading the facility and equipment

at Kilsund.... **Micron Technology** plans to buy touch panel maker **Cando**'s plant in central Taiwan, which will be operated by **Powertech Technology** (PTI) to provide the US memory vendor with packaging and testing services, according to industry sources. PTI is expected to start volume production for Micron at the plant located in Taichung as early as 2017, said the sources. The facility will be largely responsible for the back-end part of Micron's production, mainly that of mobile DRAM products in Taiwan, the sources added. Micron is already partnering with PTI for assembly and packaging services in Xian, China. The pair has built a joint-venture fab in Xian, with volume production kicking off in March 2016. At the end of 2014, Micron and PTI announced a strategic partnership under which PTI would occupy the JV fab and provide Micron with assembly and packaging services for a period of several years. In addition, Micron is expected soon to finalize its planned deal to buy Taiwan-based DRAM firm **Inotera Memories**. Micron has agreed to acquire all the shares it does not own in Inotera, and to have Inotera merge with its Taiwan unit, **Micron Semiconductor Taiwan (MST)**. Inotera chairman Pei-Ing Lee remarked previously that Taiwan would become Micron's largest site for the manufacture of DRAM memory. MST, formerly Rexchip Electronics, became a unit of Micron following the US firm's takeover of Japan's Elpida Memory. MST is a 12-inch DRAM fab located in Taichung.

In other news, on July 21 Cando disclosed that its liabilities have exceeded total assets, prompting the company to file for bankruptcy protection. Cando is a subsidiary of **TPK Holdings**, which is reportedly among **Apple**'s suppliers, as reported by *DigiTimes*.

## Inventec Lands More Short-Lead-Time Server Orders from Alibaba

**Inventec** (Taiwan) has landed more short-lead-time server orders from the **Alibaba** Group and has begun shipping from its new plant in Nanjing, according to a Chinese-language *Economic Daily News* (EDN) report.

Inventec has secured over 50% of Alibaba's server orders for the second half of 2016, indicated the paper, noting that the China-based Internet service provider usually splits its server orders between Quanta Computer and Wistron, in addition to Inventec.

Inventec expects to see its server shipments grow at a double-digit rate in 2016, with server revenues to account for 40% of its total revenues by year end, compared to 34% currently, said the paper.

*Facilities closings...* **Scanfil** (Finland) will end production at its Dongguan EMS plant during the third quarter of 2016, the company said. The company will take a \$2.2 million one-time charge in conjunction with the closure. The unit, PartnerTech Electronics Co., was acquired as part of Scanfil's purchase of PartnerTech last year. The site opened in 2012. Scanfil also operates plants in Guangzhou, Suzhou, and Hangzhou, China, in addition to its plants in Europe and North America.

*Mergers & Acquisitions...* **OKI** (Japan) continued its push into EMS with an agreement to buy **Nippon Avionics**'s (Avio) printed circuit board business. The two companies will start negotiations on technologies and facilities transfer and a range of certifications by October 1, with a target completion date of March 31, 2018. Most of Avio's printed circuit board business will be transferred to OKI Printed Circuits and OKI Circuit Technology, OKI's EMS business sites. OKI expects 2016 EMS revenue of ¥48 billion (\$475 million). It acquired **Yokogawa Electric**'s printed circuit board manufacturing and assembly factory in Ome on April 1. Avio has been making PCBs since 1964 for a host of aerospace equipment and semiconductor inspection equipment OEMs.

*Executive Changes...* Electronics manufacturer **Ionics EMS, Inc.** (Philippines) has named former Department of Science and Technology (DOST) Undersecretary Jay Sabido as its new president and chief operating officer. Sabido, whose appointment

takes effect immediately, will report directly to Ionics's founder, chair, and chief executive officer, Larry Qua. With stints in government services, Sabido was the director of the Philippine government's R&D Institute of Electronics and IT and the Department of Science and Technology's Advanced Science and Technology Institute (DOST-ASTI). He also previously served as a DOST Undersecretary and Director General of the National Computer Center.... **American Industrial Systems, Inc.**, (AIS) a subsidiary of Ennoconn Corporation (**Foxconn IPC Technology Group**) involved in human-machine interface (HMI), touchscreen interface, and industrial PC (IPC) products, announced that Joe Fijak has officially joined the company as Executive Vice President/COO. Mr. Fijak has served as a member of the AIS Board of Directors since 2013, but now joins the company as a full-time member of the senior management team as a sales leadership executive. A 34-year technology industry veteran, Fijak will play a crucial role in shaping the company's go-to-market sales strategy as the company embarks on its next phase of global growth and technology leadership in the Industry 4.0, industrial IoT, and information, communications, and technology (ICT) markets.... Former **Acer** Taiwan president Towny Huang has recently joined Internet of Things (IoT) start-up **Citpo Technologies** as chairman of the firm. Citpo's new optical fiber sensor technology has already been adopted by the University of Cambridge's lab, China's Railway Science Academy, and Taiwan's Taipei Metro System for warning systems. Optical fiber sensors are less susceptible to electromagnetic waves and also do not cause any sparking, which is suitable for multisensor deployments on a single line, said company founder Ho Yen-te.

## Electronics Firm Plexus to Expand Kelso Facility

Electronics manufacturer **Plexus Corp.** has announced a new \$500,000 investment to add component testing at its manufacturing facility in Kelso. The US firm is adding a new dedicated



building and equipment to conduct environmental stress screening (ESS), a process to test new and repaired electrical components.

Plexus said the facility is being created to “meet the specialist needs of ESS with a focus on meeting thermal, vibration, and HALT/HASS (highly accelerated life testing/highly accelerated stress screening) requirements.”

Plexus said the investment will allow it to offer an in-house service offering to customers in the defense, security, and aerospace sectors and in the oil and gas industries, as reported by *The Daily Record*.

## Smartphone Vendors Crossing into Notebook Market for Growth

China-based **Huawei** and **Xiaomi** have entered the notebook market and Korea-based smartphone brand vendors **Samsung Electronics** and **LG Electronics** are also releasing products for the market. Sources from the upstream supply chain have commented that these players are becoming strong competitors to existing notebook vendors and may even reshuffle the market in 2017. LG, which already left the notebook market once, resumed its notebook operations and has outsourced orders

to **Pegatron Technology**, targeting mainly the midrange and high-end sectors.

Because of its previous partnerships with Taiwan notebook players, including **Micro-Star International (MSI)**, LG has some experience in design and also a basic customer base. These advantages are expected to help LG acquire a good share in the midrange to high-end sectors.

The sources pointed out that smartphone vendors crossing into the notebook market shows that the players are facing difficulties achieving further growth in the smartphone market and hope that the notebook market will be able to contribute some growth, as reported by *DigiTimes*.

## Apple Looks to France for New Imaging Tech Lab

**Apple** is looking to get a head start on the next wave of imaging technology with the help of a new research and development center, according to reports. The company has signed contracts to open an imaging technology research and development lab in Grenoble, France, claims French newspaper *Le Dauphiné Libéré*. The building is roughly 800 square meters and will hold a team of 30 or so engineers, the paper claims, as well as

the accompanying machinery to develop and test new imaging technologies.

The location of the building is believed to have been chosen by Apple because it will provide a more streamlined collaboration with French-Italian electronics manufacturer **STMicroelectronics**, which has supplied various pieces for Apple products in the past and is expected to play a role in creating sensors for future iOS devices, as reported in *Yahoo*.

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