Manufacturing Market INSIDER™

inside the contract manufacturing industry

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Preliminary Results for 2017 Showed Strong Improvements

In *MMI's* annual outlook, published in the January issue, the Newsletter tries to give a sense of the latest trends in the EMS industry and an outlook for the coming year. Instead of looking forward to the next year, we have decided to summarize the results of the previous year with the best data that we have available, recognizing that many companies have not yet reported their 2017 revenue. Several of our subscribers have asked for at least a preliminary look at 2017 so that they can measure their own performance against the industry as a whole.

Anecdotally, MMI is hearing that the second half was stronger than the first half, with most companies reporting a much better year in 2017 than in 2016. But, let's begin by reviewing industry performance as reported in earlier issues of *MMI* last year. Over the last six years, EMS industry growth has been more or less flat since 2011, with slight growth from 2011–2013 and negative growth from 2014–2016, as reported in our March issue. In May, we started to see things changing with revenue growth in the first quarter of 2017. We did a special feature in the May issue on outsourcing in Japan, a country slowly but surely embracing the outsourcing model. Our July 2017 issue of *MMI* showed that M/A activity was up by 15%, a good sign that markets were expanding. Our September issue showed that the first half 2017, for the 20 largest CMs, grew by 10.2%, with ODM providers showing growth of 17.9%. Finally, our November issue reported that the top 12 EMS companies had revenue growth of 10.4% for the first nine months of 2017. **Hon Hai** alone achieved revenue growth of 14.4%, while certain smaller firms (not the top 12 EMSs) had lower growth of 5.5% for the first nine months.

As we pass 2017, we only have preliminary numbers for six leading EMS firms and five ODM companies. Though official figures are not all available, leading EMS companies showed a solid 4.6% growth in revenue in 2017, while leading ODM companies grew at a higher rate of 27.2%, averaging 12.6% for both supplier types (Table 1, page 2). ODM companies showed stronger results due to strong demand for tablets and smart phones and OEM customers giving preference to the ODM business model rather than the EMS model.

The top EMS companies performed well, except for **Flex** and **Plexus**, which experienced a decline in revenue as a result of restructuring. However, growth returned to the EMS industry, and once we have had time to collect official results (in the March *MMI* Top 50 issue), we will have a better idea of how well Tier 2 and Tier 3 performed last year.

There are other signs to consider, such as semiconductor consumption as reported by WSTS (Worldwide Semiconductor Trade Statistics) that estimates growth of 7% in 2018, which is above average. But the main indicator for the EMS industry to watch is worldwide semiconductor capital spending, which increased 5.1% ($68 billion) in 2016 and is forecast to expand by 10.2% ($69.9 billion) in 2017, according to *Gartner*. The SIA (semiconductor Industry Association) states that capital spending increased 11% in 2016 and expects an increase of 15% for 2017. This includes wafer fab equipment, automated test equipment and packaging, and equipment assembly.

Some articles in this issue

With that preface, MMI will comment on some of the trends that it expects to come to pass for 2018.

Industry Consolidation

This trend of acquisition among certain EMS companies is likely to lead to a year of consolidation within the industry going forward. There are many Tier 2 and 3 suppliers (e.g., \$20–\$200 million in annual sales) that would be better off if acquired. This is the result of an overcrowded field where the weaker suppliers will likely be acquired by the stronger ones. Industry shake-out and consolidation seems to be an inevitable trend in the near future.

More Value-Added Microelectronics

Over the last several years, several innovative technology trends have emerged that will affect the future of contract manufacturing. In most cases, these developments come from the field of materials science (such as printed electronics), but others emerge out of raw and break-through technology such as SiP (system in chip) and MCM (multi-chip modules). These are high-potential technologies that provide electronics companies the tools to produce new and leading-edge products not previously possible.

Opportunities are emerging for EMS companies to provide a new portfolio of services that is way beyond traditional printed circuit board assembly (advanced as it once was), involving thick and thin film hybrid PCBs, conductive inks and plastics, and 3D manufacturing production, which can give a subcontractor the ability to bring a product to market orders of magnitude faster than possible before.

There are numerous product opportunities apparent in the transportation industry (e.g., thin film conductive inks in trace lines in avionics and automotive applications that reduce weight tenfold) and low-cost chemical trace strips for healthcare testing that can revolutionize the diagnostics industry. All that is lacking are the contract manufacturers with the understanding of the technology and the experience to apply this technology to the product applications.

Advanced packaging and new SLP (substrate-like PCB) technologies are being promoted by **Samsung**, **Apple** and others for their next-generation smart phones, which allows for new opportunities in advanced product production, especially for contract manufacturers like Flex, **Jabil**, **Sanmina**, **Celestica**, **Foxconn**, and even some Tier 2 vertical contract manufacturers.

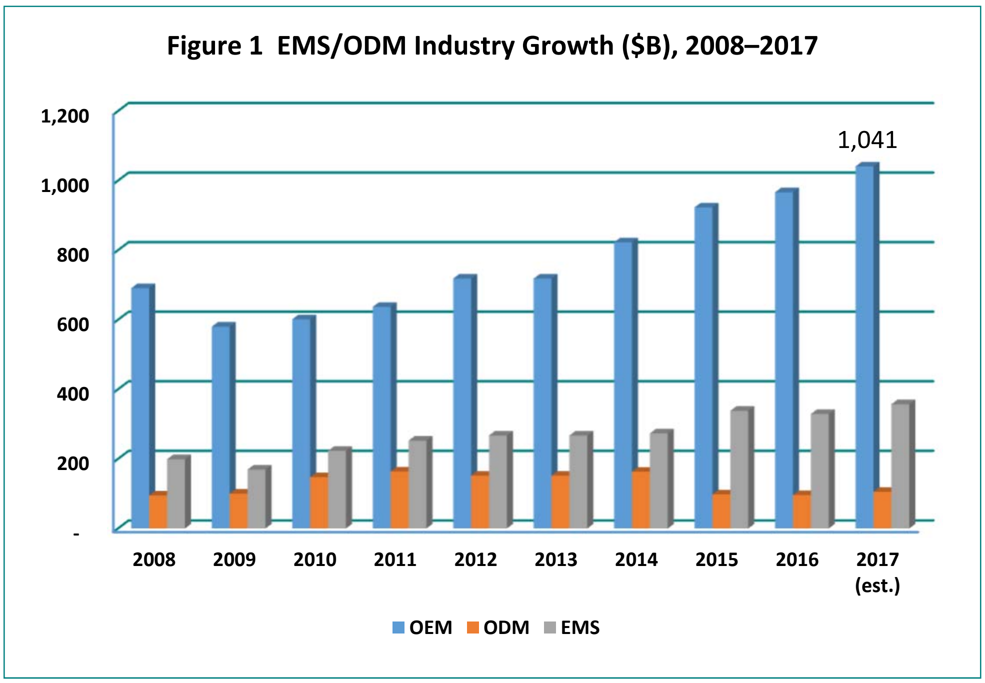

Table 1 EMS/ODM Industry Growth (\$B)

EMS Companies	2016	2017	Growth (%)
Foxconn	148.3	160.3	8.1
Pegatron	35.9	40.6	13.1
Flex	24.4	23.9	–2.3
Jabil	18.4	19.1	3.9
Sanmina	6.5	6.9	6.0
Plexus	2.6	2.5	–1.1
Total	**236.0**	**253.2**	**4.6**
ODM Companies			
Quanta	27.7	34.7	25.1
Compal	23.8	30.3	27.4
Wistron	20.5	25.6	25.0
Inventec	13.3	16.0	20.0
Lite-On	0.3	2.4	634.7
Total	**85.6**	**109.0**	**27.2**
Total	**321.7**	**362.2**	**12.6**

*unaudited - Source: Company reports

Some Quarterly Results

Kimball Electronics, Inc. (NASDAQ: KE) announced financial results for its fiscal first quarter 2018 ended September 30, 2017. Net sales were \$253 million. Consolidated net sales increased 12% compared to the first quarter of fiscal year 2017, the seventh consecutive quarterly sales record. Operating activities used cash flow of \$0.2 million during the quarter, which compares to cash flow provided by operating activities of \$14.0 million in the first quarter of fiscal year 2017. Cash conversion days ("CCD") for the quarter ended September 30, 2017 were 59 days, which increased from 58 days in the same quarter last year. CCD is calculated as the sum of days sales outstanding plus production days supply on hand less accounts payable days. Investments in capital expenditures were \$6.1 million during the quarter. Share owners were returned \$3.3 million during the quarter in the form of common stock repurchases.

Cash and cash equivalents were $38.3 million and borrowings outstanding on credit facilities were $14.0 million as of September 30, 2017. Return on invested capital ("ROIC") was 9.0% for the first quarter of fiscal year 2018, which compares to 9.6% for the prior year first quarter.

Double-digit growth in three of its four end-market verticals helped Kimball set a new quarterly sales record for the seventh consecutive quarter and kept it on a course to achieve its long-stated goal of $1 billion in annual sales in fiscal year 2018. While its margins improved sequentially from the fourth quarter of the prior fiscal year, the company is still below its new operating income goal of 4.5%. The company is focused on yield and throughput improvements on recently launched new programs and further progress on the ramp-up in Romania to help it make sequential, incremental improvement and achieve its new goal.

Integrated Micro-Electronics, Inc. (IMI) announced that it posted $795.2 million in revenues for the first nine months of 2017, an increase of 29% year on year, due to positive effects of recent acquisitions and rising demand in the automotive and industrial segments. Net income also improved by 16% to $24.1 million compared to last year.

Ongoing expansions and new product introduction carried out in the Mexico plant to support North American requirements also bolstered the group's revenues. Philippine operations increased 4% to $197.9 million, strengthened by new industrial applications despite drops in demand in the security and medical device businesses.

The company's China operations posted $198.2 million in revenues, up 1% year on year. Though there was a demand decline in the telecom infrastructure business, it was offset by positive growth in the automotive and industrial segments. The two recent acquisitions, **VIA Optronics** and **STI International**, contributed a combined $136.2 million in revenues.

New project wins for the year have reached $580 million, a 217% increase from the previous year. Other notable wins in the third quarter include controls and sensors, power modules, advanced driver assistance system (ADAS) controllers, and battery management systems.

The company continues to gain momentum as the synergistic effects of its recent acquisitions kick in. As IMI builds its competence around the next generation of technologies in high-value markets, the company will be more involved in the ever-evolving global value chains in the automotive, industrial, and aerospace markets.

VTech Holdings, Limited (HKSE: 303) announced its results for the six months ended 30 September 2017. Group revenue increased by 5.8% to US$1,039.7 million, supported by higher sales in North America, Europe, and Asia Pacific. Profit attributable to shareholders of the company increased by 45.1% to US$103.6 million. The rise in profit was due to higher revenue, product mix improvement, the absence of the one-off costs associated with the integration of **LeapFrog Enterprises, Inc.** (LeapFrog), and the contribution from the **Snom Technology GmbH** (Snom) business.

Basic earnings per share rose by 45.1% to US41.2 cents, compared to US28.4 cents in the first six months of the previous financial year. The Board of Directors has declared an interim dividend of US17.0 cents per ordinary share, unchanged from the interim dividend declared in the corresponding period last year.

The group's gross profit margin in the first six months of financial year 2018 rose from 31.9% to 32.3%. The improvement was mainly due to a more favorable product mix, a positive currency impact, and productivity gains, despite an increase in materials prices. During the period, the group successfully brought most of the LeapFrog and Snom products in-house for manufacture.

Group revenue in North America increased by 5.3% to US$499.7 million in the first six months of financial year 2018. Sales of electronic learning products (ELPs) and contract manufacturing services (CMS) were higher, offsetting lower sales from telecommunication (TEL) products. North America was VTech's largest market, accounting for 48.0% of group revenue.

ELP revenue in North America rose by 2.6% to US$192.4 million, driven by higher sales of both stand-alone and platform products. For the first nine months of calendar year 2017, the group maintained its position as the number-one manufacturer of electronic learning toys for the infancy through toddler and preschool markets in the US.

Revenue growth was negatively impacted by the filing for bankruptcy protection of **Toys"R"Us**. VTech's sales to the retailer up to the date of the filing were covered by credit insurance. After the filing, shipments were no longer covered, and hence were temporarily suspended, pending negotiation of new terms. The group makes every effort to support its long-term business partners and worked closely with Toys"R"Us to ensure the right products were delivered to consumers in the run-up to the holiday season.

One of the group's strategies in financial year 2018 has been to grow the LeapFrog stand-alone toy business. By launching more learning toys under the LeapFrog brand, this strategy has seen initial success in the first half, with rising sales of the brand's stand-alone products. A number of the infant and preschool products performed particularly well, including both new and classic items, namely 2-in-1 LeapTop Touch™, Mr. Pencil's Scribble & Write™, and Scoop & Learn Ice Cream Cart™, as well as My Pal Scout and Violet. Scoop & Learn Ice Cream Cart was featured in *The Toy Insider*'s "Hot 20" list of the hottest toys of the season.

Group revenue in Europe increased by 0.3% to US$413.7 million in the first six months of financial year 2018, as higher sales of ELPs and TEL products offset a decline at CMS. Europe remained VTech's second largest market, accounting for 39.8% of group revenue. ELP revenue in Europe rose by 7.8% to US$155.7 million, with growth in both stand-alone and platform products. Geographically, all the group's key western European markets—France, the UK, Germany, Benelux, and Spain—recorded sales increases. In the first nine months of calendar year 2017, VTech strengthened its position as the number-one infant and toddler toy manufacturer in France, the UK, Germany, Spain, and Belgium.

Growth in stand-alone products was driven by higher sales of both VTech and LeapFrog infant and preschool products, the Kidizoom Camera range, and the Kidi and Little Love® lines. These offset lower sales of the Toot-Toot family of products. During the first six months of fiscal 2018, VTech ELPs garnered many awards in Europe. Kidizoom Flix was included in the "Top 10 Toys for Christmas 2017" at Amazon in the UK. In France, VTech won four "2017 Grand Prix du Jouet" awards presented by *La Revue du Jouet* magazine. Little Love Puppy Pal was named "Toy of the Year 2017" and "Best Special Feature Doll," while GearZooz Roll & Roar Animal Train was named "Best Educational Toddler Toy."

Revenue from TEL products in Europe increased by 10.3% to US$69.5 million. Higher sales of commercial phones and other telecommunication products offset lower sales of residential phones.

CMS revenue in Europe decreased by 8.1% to US$188.5 million. The decrease was mainly due to a fall in sales of switching mode power supplies, as a change in ownership led a customer to begin moving production back in-house. Sales of professional audio equipment and hearables retreated slightly. The decline in sales of professional audio equipment was due to a product being phased out by an existing customer.

Revenue from ELPs in Asia Pacific rose by 43.4% to US$35.0 million, led by growth in mainland China, Australia, Hong Kong, and South Korea. In mainland China, the group benefited from new product launches, channel expansion, and increased marketing efforts. In Australia and South Korea, the group's products achieved broader listings, while more promotions drove sales higher in Hong Kong. Increased sales of LeapFrog-branded products in other Asia Pacific markets also contributed to overall growth.

TEL products revenue in Asia Pacific rose by 30.7% to US$21.7 million, driven by higher sales in Japan and Hong Kong. In Japan, the group secured more projects and orders from an existing customer. In Hong Kong, VTech supplied telecommunication devices to a leading local broadband service provider, driving sales of integrated access devices (IADs) and cordless advanced technology - Internet and quality (CAT-iq) handsets. Sales in Australia saw a decline despite increased sales of baby monitors, which were insufficient to offset lower sales of residential phones.

CMS revenue in Asia Pacific increased by 51.9% to US$43.9 million. Higher sales of medical and health products, professional audio equipment, hearables, and communication products offset lower sales of solid-state lighting and home appliances. The sales contribution from the newly acquired high-precision metal parts business added to growth.

Group revenue in the Other Regions category, comprising Latin America, the Middle East, and Africa, decreased by 1.2% to US$25.7 million in the first six months of fiscal 2018. Lower sales of TEL products in Other Regions offset higher sales of ELPs and CMS. Other Regions accounted for 2.5% of group revenue. ELP revenue in Other Regions rose by 12.8% to US$10.6 million for the period, as higher sales in the Middle East compensated for lower sales in Latin America and Africa. TEL products revenue in Other Regions decreased by 10.5% to US$14.5 million. The decline was attributable to lower sales in Latin America, offsetting growth in the Middle East and Africa. CMS revenue in Other Regions was US$0.6 million in the first six months of fiscal year 2018, as compared to US$0.4 million in the corresponding period of the last financial year.

Group revenue for fiscal 2018 is expected to increase. Sales of TEL products are anticipated to pick up in the second half, while the good momentum behind CMS is forecast to continue. For ELPs, sales for the full financial year are difficult to gauge, as there is uncertainty regarding the level of shipments in the second half to Toys"R"Us, one of the group's top five customers. Consequently, the trend in gross margin is also difficult to predict.

Fabrinet (NYSE: FN) announced financial results for its first quarter, ended September 29, 2017. Revenue for the first quarter of fiscal year 2018, a 13-week quarter, was $357.3 million, an increase of 8% compared to revenue of $332.0 for the comparable period in fiscal year 2017, a 14-week quarter. GAAP net income for the first quarter of fiscal year 2018 was $21.0 million, compared to GAAP net income of $22.8 million for the first quarter of fiscal year 2017. GAAP net income for the first quarter of fiscal year 2018 included a foreign exchange loss of $1.9 million, or $0.05 per diluted share. GAAP net income per diluted share for the first quarter of fiscal year 2018 was $0.55, compared to GAAP net income per diluted share of $0.61 for the first quarter of fiscal year 2017.

Non-GAAP net income for the first quarter of fiscal year 2018 was $28.6 million, compared to non-GAAP net income of $29.7 million for the same period a year ago. Non-GAAP net income per diluted share for the first quarter of fiscal year 2018 was $0.75, a decrease from non-GAAP net income per diluted share of $0.80 for the same period a year ago. Non-GAAP net income for the first quarter of fiscal year 2018 included a foreign exchange loss of $1.9 million, or $0.05 per diluted share.

The first-quarter revenue was within the company's guidance range. Growth from datacom and nonoptical communications products was healthy compared to a year ago, with new programs and advanced technologies, including silicon photonics and QSFP28 being notable contributors. However, tempered demand for telecom products resulted in flat performance in that category compared to a year ago.

Fabrinet expects second-quarter revenue to be in the range of $328 million to $332 million. GAAP net income per diluted share is expected to be in the range of $0.43 to $0.45, based on approximately 38.2 million fully diluted shares outstanding. Non-GAAP net income per diluted share is expected to be in the range of $0.69 to $0.71, based on approximately 38.2 million fully diluted shares outstanding.

Venture Corporation (SGX: V03). In the third quarter of 2017, Venture registered a 135% jump in net profit to S$111.4 million, driven by strong revenue growth and value creation through engineering and R&D capabilities. Sustained operational excellence also contributed to the high productivity and quality performance. For the nine months ended 30 September 2017, net profit rose 81.5% year on year to S$229.8 million.

For the quarter ended 30 September 2017, the group registered revenue of S$1.1 billion, an increase of 50.5% year on year. For the nine months ended 30 September 2017, revenue improved by 44.5% year on year to S$2.9 billion. Revenue improvement for the reported quarter and for the first nine months of 2017 is attributable to the commendable progress achieved by the group in several strategic and operational imperatives, including continuing strong execution of customers' programs and deepening of collaborative partnerships with strategic customers.

In tandem with the revenue growth, the group recorded profit before tax (PBT) of S$131.3 million for the quarter ended 30 September 2017, an increase of 131.7% year on year. For the first nine months of 2017, the group recorded PBT of S$275.8 million, an increase of 82.9% year on year. In line with the higher PBT and based on tax incentives granted to its subsidiaries, the group reported income tax expense of S$19.9 million for the reported quarter and S$46.0 million for the first nine months of 2017.

Net profit rose 135.0% year on year to S$111.4 million for the reported quarter. The group registered a net margin of 10.5% for the reported quarter (3Q2016: 6.7%) and 7.9% for the first nine months of 2017 (9M2016: 6.3%).

Diluted earnings per share for the reported quarter was 38.9 cents (3Q2016: 17.0 cents) and 80.5 cents for the first nine months of 2017 (9M2016: 45.5 cents).

The group generated operating cash flow of S$153.5 million before working capital changes for the quarter ended 30 September 2017 (3Q2016: S$71.2 million). For the nine months ended 30 September 2017, operating profit before working capital changes amounted to S$315.9 million (9M2016: S$187.4 million). For the quarter ended 30 September 2017, the group registered an increase in its working capital position largely due to trade receivables and inventory balances. The trade receivables balance stood at S$803.7 million, in tandem with the revenue recorded for the reported quarter. The increase in inventories was primarily to support customers' requirements and programs. For the nine months ended 30 September 2017, the group generated cash from operations of S$308.6 million (9M2016: S$207.6 million).

As of 30 September 2017, the group had S$599.6 million in cash and bank balances (S$499.7 million on 31 December 2016). As of the end of the reported quarter, the group remained net cash positive at S$535.1 million (S$407.1 million on 31 December 2016). As of 30 September 2017, equity attributable to owners of the company was S$2.0 billion (S$2.0 billion on 31 December 2016) and net asset value per share was S$7.14 (S$7.03 on 31 December 2016).

Venture Corporation's recent financial results and operational excellence are strong indicators of its progress across multiple platforms of strategic and operational initiatives. Venture continues to forge deeper and mutually beneficial collaborative partnerships and alliances across its diversified portfolio of ecosystems of interest.

TT Electronics plc (LON: TTG). In the first half 2017, group revenue increased by 13% to £180.0 million (H12016: £159.2 million), or 6% excluding the effects of foreign exchange. On an organic basis, revenue increased by 5%, driven by positive market dynamics and share gains in the Sensors and Specialist Components division and strong market demand in Power Electronics, including some one-off, last-time buy activity as it moves production from Fullerton in the US to its Bedlington facility in the UK. Revenue in Global Manufacturing Solutions declined by 2% organically, but returned to growth in the second quarter, supported by contract wins in the US. The group's order momentum continues to be good across all three divisions.

Underlying operating profit increased by 31% to £10.9 million (H12016: £8.3 million), with the improvement largely driven by Sensors and Specialist Components and Power Electronics. Underlying operating profit increased by 11% at constant currency. There was a £1.5 million foreign exchange benefit. At current exchange rates, the company is not expecting any further foreign exchange benefit in the second half.

Cash performance was excellent, with cash conversion from continuing operations of 128% (H12016: 63%). The working capital movement for the continuing operations improved to a £2.0 million inflow (H12016: £5.6 million outflow), with the adverse impact of revenue growth on debtors and inventory more than offset by the timing of creditor payments.

The group's free cash inflow totaled £6.8 million (H12016: outflow £4.9 million). Net debt was £56.0 million on 30 June 2017 (31 December 2016: £55.4 million). On a pro-forma basis, taking account of the proceeds of the disposal of the Transportation Sensing and Control (TS&C) division net of fees, net cash on 30 June 2017 was approximately £55 million.

The company remains focused on R&D investments to develop solutions for its customers' most complex challenges, and spent £4.9 million on

R&D across Sensors and Specialist Components and Power Electronics during the period, up 6% at constant currency. The company continues to increase the rate of new product launches, including current sensing and signal conditioning components for battery monitoring applications such as flight computers and hybrid vehicles.

Sensors and Specialist Components (40% of continuing group revenue). First- half revenue was £71.0 million (H12016: £60.6 million), up 17% organically and up 6% at constant currency. The strong revenue improvement was driven by improving underlying market demand and what the company believes to be a short-term increase in OEM and distributor demand for its advanced circuit protection, current sensing, and signal conditioning components as a result of extending industry lead times. The company has captured market share as a result of its operational efficiency improvements, reduced lead times, and increased capacity.

Improved market demand for advanced circuit protection, current sensing, and signal conditioning components has been driven by applications requiring reduced size and weight and increased packaging density and power efficiency. Market demand has been strong for these applications in product areas such as white goods and consumer electrical equipment, where customers are requiring ever-increasing performance.

New product innovation continues to increase, with more new products launched in the first six months of the year than in the same period in 2016. This includes a number of new components such as battery monitoring applications with enhanced capabilities, including higher rated power and lower temperature sensitivity.

Power Electronics (18% of group revenue). Revenue for the first half was £33.0 million (H12016: £26.3 million), an increase of 25% at constant currency, and 23% organically. The strong revenue growth was a result of continued penetration in the aerospace and defense market, together with the unique and last-time buy activities of its move from Fullerton (US) to Bedlington (UK).

Sanmina Corporation (NASDAQ: SANM) announced preliminary financial results for the first quarter ended December 30, 2017 and the outlook for the second quarter ending March 31, 2018. The company expects first-quarter revenue of approximately $1.74 billion versus the prior outlook of $1.75 billion to $1.80 billion. The company expects a first-quarter GAAP loss per share of $1.85 to $2.27, including noncash adjustments for deferred tax and discrete tax items of $2.03 to $2.31, restructuring costs of $0.19 to $0.33, stock-based compensation expense of $0.12, and amortization of intangible assets of $0.03. The company expects non-GAAP diluted earnings per share of $0.48, versus its previously provided outlook of $0.68 to $0.74.

As a result of the enactment of the Tax Cuts and Jobs Act (the “Act”), the company expects GAAP income tax expense for the first quarter to include a noncash charge of $150 million to $170 million relating to the reduction in carrying value of its net deferred tax assets.

On January 12, 2018, the company adopted a consolidated restructuring plan impacting three of its manufacturing facilities. As a result of this plan, the company expects to incur restructuring charges of approximately $25 million to $35 million over the period of the consolidated restructuring plan, all of which is expected to be cash. In connection with this plan, the company expects to record charges in its first quarter of fiscal 2018 of approximately $15 million to $25 million, consisting of severance and retention pay for affected employees to be paid over the period of the consolidated restructuring plan. The company expects to complete the actions taken under this plan through the first quarter of fiscal 2020.

Second-quarter fiscal 2018 outlook: Sanmina expects revenue between $1.6 billion and $1.7 billion, and GAAP diluted earnings per share between $0.20 and $0.30, including stock-based compensation expense of $0.17 and amortization of intangible assets and restructuring costs of $0.03. Non-GAAP diluted earnings per share between $0.40 and $0.50 are expected.

Company News

Micron and Intel to Keep Developing 3D NAND Technology

Micron and **Intel** have agreed to complete development of their third generation of 3D NAND technology, which will be delivered toward the end of this year and into early 2019.

Beyond that technology node, both companies will develop 3D NAND independently in order to better optimize the technology and products for their individual business needs. The companies expect no change in the cadence of their respective 3D NAND technology development of future nodes. The two companies are currently ramping products based on their second generation of 3D NAND (64 layer) technology.

Both companies will also continue to jointly develop and manufacture 3D XPoint at the Intel-Micron Flash Technologies (IMFT) joint venture fab in Lehi, Utah, which is now entirely focused on 3D XPoint memory production, as reported by *Evertiq*.

Jabil Expands and Relocates in Penang

EMS provider **Jabil** says it’s expanding and relocating its Global Business Centre (GBC) in Penang, Malaysia. The company will relocate from Penang’s Bayan Lepas Industrial Park to GBS@Mayang in order to accommodate future growth and capabilities improvement plans.

Occupying two floors at over 72,700 square feet (6,750 square meters), the GBC will be the major tenant at GBS@Mayang. The relocation will allow for future headcount expansion to 1,000 executives, and support Jabil’s capabilities enhancement plans to move into higher value work. These include the introduction of robotic process automation, which will eliminate standard and repetitive work processes, and Jabil’s Intelligent Digital Supply Chain (IDSC) solutions.

Jabil has been running its operations in Penang since 2009. The GBC houses the company's global IT, supply chain, centralized procurement, and finance functions. The company currently employs some 850 professionals in Penang.

Cypress Industries Acquires Concurrent Manufacturing Solutions

Texas-based contract manufacturer **Cypress Industries** ended 2017 by acquiring **Concurrent Manufacturing Solutions**, located in Matamoros, Mexico.

With the acquisition the company is adding 135 employees, and the 100,000-square-foot facility allows Cypress Industries to offer a greater range of manufacturing solutions to its customers.

By merging Concurrent with its other facilities in the United States and India, Cypress has achieved unprecedented capabilities for a midsized contract manufacturer.

Nortech Systems Names New CFO

EMS provider **Nortech Systems** has named Connie Beck as vice president and chief financial officer.

Along with directing all financial planning and accounting practices, she will oversee Nortech's relationships with its business partners, the financial community, and shareholders.

Beck was vice president of finance and controller for MOCON, Inc., a publicly traded provider of measurement instruments and services, from 2013 to 2017. She was a member of MOCON's senior leadership team, supporting strategic planning and international multisite operations. (MOCON was acquired by AMETEK in June 2017.)

Stadium Group Inks Deal with Mouser to Expand Design-Led Opportunities

The agreement signed with **Mouser** covers the distribution of **Stadium Group**'s standard technology products, including power supplies, HMI modules such as single illuminated capacitive switches, and wireless IoT devices.

The deal marks another step in Stadium Group's strategy to grow its customer base and gain greater reach into new markets. The company has also made important investments in recent months by bolstering both its worldwide presence and its product portfolio, especially in power products and technologies. Very recently, the company announced the acquisition of **PowerPax UK, Limited**, a UK-based specialist value-add manufacturer and distributor of a wide range of power supplies, battery chargers, and LED products. Earlier in 2017, Stadium acquired UK-based **Cable Power, Limited**, adding further electronic, power, and single-board computing solutions to the portfolio. Both of these companies have been integrated into the Group's power technology division.

Entech to Expand HQ, Plant

EMS firm **Entech** will invest $2.8 million to build a new headquarters in Adelaide, Australia and will add up to 60 workers over the next three years.

The investment is backed by a state grant worth half the investment total, up to $1.4 million.

One of south Australia's largest EMS companies, Entech currently employs 80 workers.

Advisor Gives Thumbs Up to Proposed Sale of BCM Electronics

An independent advisor says **Comintel**'s proposed divestiture of its EMS unit, **BCM Electronics**, is fair and reasonable, and not detrimental to the interest of non-interested shareholders.

KAF Investment Bank is recommending that shareholders approve the proposed sale to a company partly owned by executive director Loh Hock Chiang.

Under the deal, Comintel would sell BCM to **Aurelius Holdings** for RM123.8 million ($31 million), a move the firm said would allow it to focus on its core business of green waste management and would unlock unrealized value in the EMS unit.

Quanta Investing $200M in Chinese Electronics Companies

Quanta Computer will invest nearly $200 million in its notebook manufacturing subsidiaries in mainland China, the company announced recently.

Among the new investments are $45 million in **Zhan Yun (Shanghai) Electronics Co.**, $45 million in **Changshu Zhan Yun Electronics Co.**, and $100 million in **Zhan Yun (Chongqing) Electronics Co**.

Zhan Yun is a manufacturer of notebooks and notebook peripherals.

All three companies are 100%-owned subsidiaries of Quanta, the world's third-largest ODM/EMS, according to the *Circuits Assembly* Top 50. The funds bring Quanta's total investment in its Zhan Yun subsidiaries to $287 million.

Flex to Build Huge Production Campus in Israel

Flex will open a new, 330,000-square-foot production facility in Israel at Modi'in-Maccabim-Re'ut, a town located 35 km (22 miles) southeast of Tel Aviv, and will add more than 200 workers once the site is up and running.

Flex currently employs more than 4,000 workers in Israel, including 800 in a plant in Yavne who will be relocated once the new site comes online. Flex has operated in Israel since 1997.

Top 3 EMS Firms Dominate Europe's Outsourcing Market

Europe's three largest EMS providers accounted for 44% of the €28.1 billion European EMS market in 2016, a new report says.

Reed Electronics Research says the top three firms—**Foxconn, Flex,** and **Jabil—** dominated the annual rankings, accounting for a combined $12.4 billion in sales in the market. Overall, the top 10 companies accounted for 57% of European EMS revenues and the top 25 companies collectively represent 68% of the total European EMS market.

Germany's **Zollner Group** remained the leading indigenous European EMS provider, with revenues estimated at €1.04 billion, 53% of which were generated from the company's domestic operations. Hungary's **VIDEOTON** ranked fifth, and along with **Fideltronik** was one of the two CEE-headquartered companies in the rankings.

Scanfil's acquisition of **PartnerTech** in 2015 has strengthened the Finnish company's position, although revenues in 2016 were impacted by the realignment of the combined group's manufacturing operations in Europe, which included plant closures and the sale of noncore activities.

Neways Electronics rose to eighth, from tenth the previous year, aided by the 2014 acquisition of **BuS Elektronik**, which has now been fully integrated and has significantly strengthened its overall EMS market position and in particular its exposure to the important German market and the automotive sector.

Enics dropped one place in the ranking, with European sales stable during the year.

Apart from **éolane**, which reported marginally lower European EMS revenues in 2016, the other French companies in the ranking—**Asteelflash**, **ALL CIRCUITS,** and **LACROIX Electronics**—all reported increased revenues. Although achieving stable revenues in France, Asteelflash benefited from a further increase in revenues at the company's German operations. Although falling one place in the overall ranking, LACROIX Electronics' sales increased by 6.7% during the year, this after the prior year's double-digit growth, while ALL CIRCUITS' revenues grew by just under 20%.

Sanmina, **Celestica**, **Kimball**, and **Plexus** (however, note cover article) all of North America, reported growth during the year, as did the remaining non-European company, **Integrated Micro-Electronics**, which reported a 16% increase in revenues in 2016.

Apple to Give More MacBook Orders to Foxconn in 2018

Apple is expected to shift a major portion of its MacBook orders to **Foxconn Electronics** (Hon Hai Precision Industry) in 2018 instead of its old practice of giving most of the orders to **Quanta Computer**, according to sources from the upstream supply chain.

Foxconn is expected to begin mass shipments to fulfill the new orders in the second quarter of 2018, said the sources.

The sources pointed out that Apple started outsourcing the assembly for some MacBook components to Foxconn's plants in Shenzhen, China in the second half of 2017.

Despite the fact that Foxconn will see a major increase in MacBook orders in 2018, Quanta is expected to remain the largest MacBook supplier to Apple in the year, said the sources.

Digitimes Research's figures show that the upstream supply chain has shipped around 15 million MacBooks a year to Apple, with the shipment ratio for Quanta and Foxconn at around 8:2 for the past five years.

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