Manufacturing Market INSIDER™

inside the contract manufacturing industry

Vol. 28, No. 11 **November 2018**

Nine-Month Revenue Increases for Top 12

Double-digit growth for the first nine months of 2018 raises the possibility that the top 12 EMS providers as a whole will end up with annual growth in 2018.

For the first nine months of 2018, revenue for the 12 largest EMS providers by total sales amounted to $221.7 billion, up 18.3% year over year. This is an improvement over 2017, when there was growth of 10.4%.

Unlike in 2016, when **Hon Hai** had exerted a drag on sales, so far this year Hon Hai gave a boost to top 12 sales. For the first nine months, top 12 sales without Hon Hai were 12.8%, versus an increase of 18.3% including the company (Chart 1). Hon Hai improved the result by 5.5 percentage points.

While top 12 revenue is not all EMS—ODM, component, and other types of revenue are mixed in—the majority of it is, enough so that this growth serves as a rough gauge of how well the EMS industry did in the first nine months, based on the belief that the top 12 account for about half of industry revenue.

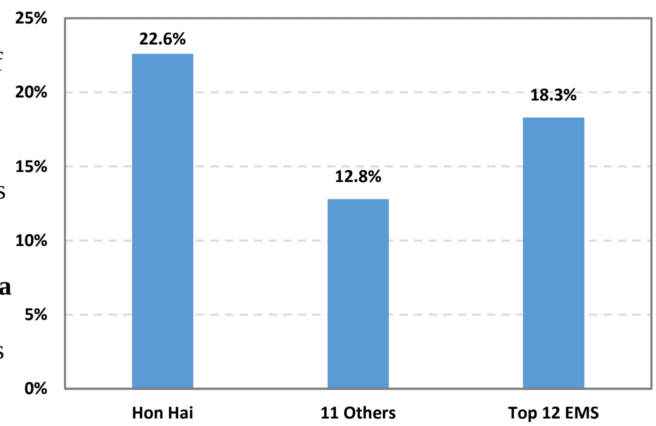
Nine-month sales results can give one a partial view of how the top 12 order will shape up at the end of the year. The first three companies in the current standings—Hon Hai, **Pegatron,** and **Flex**, in that order—will easily retain those positions at year end, barring the entry of any potential new candidate. **Jabil, Sanmina,** and **Celestica** will remain in fourth, fifth, and sixth place, respectively. However, **Cal-Comp** is a member of the **New Kinpo Group**, whose 2018 sales might challenge those of Celestica in the annual ranking of the *MMI* Top 50.

The next four providers are in a fairly tight cluster after nine months so it's unclear how **Universal Scientific Industrial (USI)**, Cal-Comp, **Plexus,** and **Shenzhen Kaifa** will finish except to say that according to 2018 estimates, Plexus will rank ahead of Shenzhen Kaifa. The twelfth spot should go to **Benchmark Electronics**.

There was only one top 12 provider whose nine-month sales in US dollars fell from the year-earlier period. Only **Venture** was unable to increase its sales year over year, whereas Hon Hai, Pegatron, Jabil, Plexus, Universal Scientific Industrial, and Shenzhen Kaifa were able to post double-digit growth (Table 1, page 2).

For the first nine months, the 12 providers together earned net profit of approximately $5 billion, down about 3.2% from a year earlier. (The net income (profit) total is approximate because not all companies follow the same accounting standard.) Nine-month sales increased by 18.3%, but net income declined. Net profit decline at eight companies outweighed increases at the four other companies. Overall net margin for the first three quarters was about 2.3%. Hon Hai contributed about 75.5% of net income for the period while generating 58.6% of sales.

Chart 1: Nine-Month 2018 Sales Growth Year over Year



Q3 sales for the top 12 totaled almost $67 billion, up 2.8% sequentially

Some articles in this issue

Table 1: Q3 and Nine-Month 2018 Results for the 12 Largest EMS Providers (US$M or %)															
Company (in order of 9-mo. sales)	Head-quarters	Reports in US$	3Q18 Sales	2Q18 Sales	Qtr.–Qtr. Chg.	3Q17 Sales	Yr.–Yr. Chg.	3Q18 Net Profit	2Q18 Net Profit	3Q17 Net Profit	Q1–3 '18 Sales	Q1–3 '17 Sales	Yr.–yr. Chg.	Q1–3 '18 Net Profit	Q1–3 '17 Net Profit
Hon Hai (Foxconn)	Taiwan	No	36,485	35,278	3.4	30,323	20.3	591	826	588	129,911	105,997	22.6	3,825	3,650
Pegatron	Taiwan	No	9,168	9,634	(4.8)	7,902	16.0	99	71	113	31,490	26,964	16.8	296	423
Flex	Singapore	Yes	6,711	6,424	4.5	6,270	7.0	87	116	205	19,545	18,141	7.7	183	417
Jabil	Florida	Yes	5,772	5,437	6.2	5,023	14.9	54	43	46	16,510	13,958	18.3	165	41
Sanmina	California	Yes	1,876	1,813	3.5	1,755	6.9	7	34	26	5,365	5,149	4.2	65	94
Celestica	Canada	Yes	1,711	1,695	0.9	1,533	11.6	9	16	35	4,906	4,573	7.3	39	92
Universal Scientific Industrial	China	No	1,471	1,035	42.1	1,097	34.1	61	32	46	3,495	2,981	17.2	123	127
Cal-Comp	Thailand	No	846	786	7.6	722	17.3	4	(8)	9	2,518	2,314	8.9	(3)	28
Plexus	Wisconsin	Yes	771	726	6.2	670	15.1	32	27	29	2,196	1,893	16.0	70	84
Shenzhen Kaifa	China	No	684	670	2.1	530	29.0	42	14	24	1,987	1,575	26.2	70	69
Venture	Singapore	No	582	719	(19.1)	782	(25.6)	61	74	82	1,954	2,121	(7.9)	199	168
Benchmark Electronics	Texas	Yes	641	661	(3.0)	604	6.2	8	11	18	1,909	1,781	7.2	35	44
Total/Avg.			**66,718**	**64,879**	**2.8**	**57,210**	**16.6**	**1,054**	**1,255**	**1,220**	**221,787**	**187,445**	**18.3**	**5,066**	**5,236**
Total/Avg. without Hon Hai			**30,233**	**29,601**	**2.1**	**26,888**	**12.4**	**463**	**429**	**632**	**91,876**	**81,448**	**12.8**	**1,241**	**1,587**

These are the 12 largest EMS providers based on total sales. Results in non-US currencies were converted to US dollars by applying a three-month average exchange rate for the corresponding quarter. Average exchange rates were based on monthly 2017 and 2018 data from the US Federal Reserve. Company net profits shown here are attributable to shareholders. Net profit totals are approximate because not all companies follow the same accounting standard.

and up nearly 17% year over year. Nine companies grew their sales from the prior quarter, led by Universal Scientific Industrial with a 42.1% increase in US dollars. Cal-Comp was second, reporting a 7.6% increase (Table 1). On a year-over-year basis, 11 providers succeeded in growing their Q3 sales. These increases include double-digit gains at Universal Scientific Industrial, Shenzhen Kaifa, Hon Hai, Cal-Comp, Pegatron, Plexus, Jabil, and Celestica. In the quarterly comparison, the presence of Hon Hai was a positive. Excluding Hon Hai, Q3 growth would have been 12.4%, meaning that the EMS giant added 4.2 percentage points to the top 12's growth.

Net income for the top 12 in Q3 amounted to approximately $1 billion, for a net margin of about 1.6%. Without Hon Hai, combined net margin would have been 1.5%. Shenzhen Kaifa recorded net margins of 10% or better. Top 12 net income decreased about 14% year over year, with 16.6% sales growth. Though five out of 12 providers raised their Q3 net income from a year earlier, these improvements were more than offset by lower net income results at the remaining seven companies.

A similar trend was that, sequentially, the top 12's net income declined in Q3 by a much larger percentage than did sales. Net income declined about 16% quarter on quarter, with sales declining by 2.8%. The net income declined at six out of 12 providers on a quarter-over-quarter basis (Table 1).

Results for Five Providers

For the third quarter, **Foxconn** posted profit of T$24.88 billion, or $805.52 million.

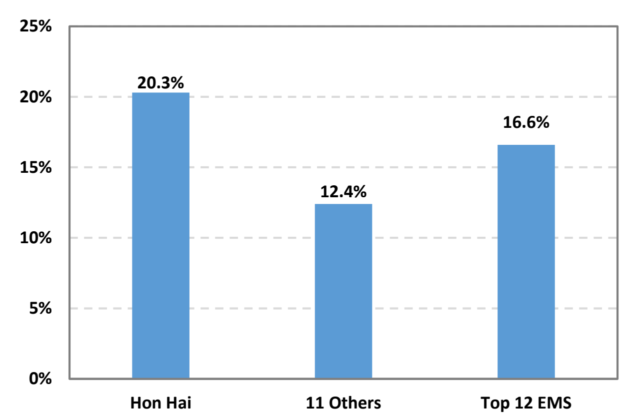
This was the biggest quarterly profit the company has posted this year and came in 18 percent above the year-earlier results, Reuters reported. Compared to the previous quarter's profit growth, the main reasons for this result were entry into the peak season, increase in shipment scale, and a rise in production efficiency and yield.

In addition, costs controls were good and the ratio of operating expenses was smaller, which led to the profit increase.

Apple warned earlier this month that holiday sales would miss Wall Street expectations due to weakness in emerging markets, including India, and foreign-exchange costs.

Last week, Hon Hai reported that its October sales were up 21.5 percent year on year, the slowest

Chart 2: 3Q2018 Sales Growth Year Over Year



year-on-year growth rate for any month since April.

Foxconn’s gross margin this year is unlikely to return to the 7 percent it enjoyed in the 2015–2016 fiscal years due to weakening iPhone shipment growth and lower prices for metal casings, Fubon Research analyst Arthur Liao said in a research note ahead of the company’s earnings.

Foxconn is a key assembler of the iPhone XR model, the cheapest of this year’s new launches and a model that is likely seeing very little traction with customers.

Venture Corporation, Limited, for the quarter ended 30 September 2018, registered revenue of S$770.4 million.. The decline in 3Q2018 revenue was mainly attributable to the impact arising from customers’ planned transition to new replacement products and some customers’ M&A activities for the reported quarter.

In tandem with the lower revenue, the group recorded profit before tax (PBT) of S$94.7 million for 3Q2018, a decrease of 27.9% year-on-year. Net profit (profit attributable to owners of the company) decreased 27.5% year on year to S$80.8 million for 3Q2018. This translates to a net margin of 10.5% for 3Q2018, on par with the corresponding quarter last year (3Q2017: 10.5%). Diluted earnings per share was 27.8 cents (3Q2017: 38.9 cents).

The group generated operating cash flow of S$100.3 million, before working capital changes, for 3Q2018 (3Q2017: S$153.5 million). For 9M2018, operating profit before working capital changes amounted to S$326.4 million (9M2017: S$315.9 million). For the quarter ended 30 September 2018, the group registered an increase in working capital position largely due to inventories balances. The increase in inventories was primarily to provide assurance of supply to support customers’ programs and to alleviate current constraints arising from shifting and disruption of the global supply chain.

As of 30 September 2018, equity attributable to owners of the company was S$2,247.0 million (S$2,165.8 million as of 31 December 2017) and net asset value per share was S$7.80 (S$7.61 as of 31 December 2017).

Sanmina Corporation (NASDAQ: SANM) revenue for the fourth quarter was $1.88 billion, compared to $1.81 billion in the prior quarter and $1.76 billion for the same period of fiscal 2017. Revenue for the fiscal year ended September 29, 2018 was $7.11 billion, compared to $6.87 billion for the fiscal year ended September 30, 2017. Non-GAAP diluted earnings per share was $0.67.

Non-GAAP operating income in the fourth quarter was $64.7 million, or 3.5 percent of revenue, compared to $61.1 million, or 3.5 percent of revenue, for the same period a year ago. Non-GAAP operating income for the full fiscal year was $218.8 million or 3.1 percent of revenue compared to $275.2 million or 4.0 percent of revenue for fiscal year 2017.

Non-GAAP net income in the fourth quarter was $48.1 million, compared to $49.8 million for the same period a year ago. Non-GAAP diluted earnings per share for the fourth quarter was $0.67, compared to $0.64 in the same period a year ago. Non-GAAP net income for fiscal year 2018 was $161.4 million, compared to $224.6 million in fiscal year 2017. Non-GAAP diluted earnings per share in fiscal year 2018 was $2.21, compared to $2.87 in fiscal year 2017.

The following outlook is for the first fiscal quarter, ending December 29, 2018: revenue between $1.875 billion and $1.925 billion; non-GAAP diluted earnings per share between $0.68 and $0.74.

Plexus (NASDAQ: PLXS) announced financial results for its fiscal fourth quarter ended September 29, 2018: revenue of $771 million and record fiscal 2018 revenue of $2.9 billion. Fiscal fourth-quarter GAAP diluted EPS was $2.20. Fiscal fourth-quarter non-GAAP adjusted diluted EPS was $0.96, excluding $1.24 per share related to net nonrecurring tax benefits.

During 4Q2018 the company won 44 manufacturing programs during the quarter, representing $233 million in annualized revenue when fully ramped into production.

Fiscal fourth-quarter GAAP diluted EPS included a net benefit of $1.24 per share related to US tax reform. The benefit resulted from adjustments made in applying additional guidance from the US Department of the Treasury, as well as its utilization of accumulated US net operating loss carryforwards, which reduced the repatriation tax. The company also recognized a benefit from the reversal of its valuation allowance previously maintained on its US net deferred tax assets.

As the company looks to the fiscal first quarter of 2019, it is guiding revenue of $750 million to $790 million. It expects continued strong operating performance with operating margin in the range of 4.6% to 5.0% and GAAP diluted EPS in the range of $0.85 to $0.95. It believes that its operating performance strength in the fiscal first quarter of 2019 will alleviate the impact of increased tax expense, estimated at $0.05 per share above the previous quarter.

Flex (NASDAQ: FLEX). Reported 2Q2019 net sales for the second quarter ended September 28, 2018 were $6.7 billion, growing 7% year over year, and within the guidance range of $6.6–$7.0 billion. GAAP income before income taxes was $109 million for the quarter and adjusted operating income was $224 million, above the midpoint of the guidance range of $200 million to $230 million. GAAP net income was $87 million and adjusted net income for the quarter was $153 million. GAAP net income per share was $0.16 for the quarter and adjusted EPS was $0.29 for the quarter.

Flex and **NIKE** have mutually agreed to wind down the footwear manufacturing operations in Guadalajara by December 31, 2018. The company is in the process of finalizing the terms and details of the wind-down and is striving hard to retain many of the affected employees and repurpose the facility. In connection with the closure of the operation, the company recognized $30 million of exit costs.

For the third quarter ending December 31, 2018, revenue is expected to be in the range of $6.6 billion to $7.0 billion. Adjusted EPS is expected to be in the range of $0.29 to $0.33 per diluted share.

Growth Quarter for US-Traded Group

Combined Q3 sales for the six largest US-traded EMS providers rose on both sequential and year-over-year bases, an outcome that wouldn't normally raise eyebrows. Except that this is the first time in three years that the group of six has achieved year-over-over growth in quarterly sales.

Revenue for the six providers totaled $17.48 billion, up 4.3% sequentially and 10.3% year over year. Year-over-year growth was in double digits at **Plexus, Jabil**, and **Celestica**. Five of the six companies also increased their sales with respect to the prior quarter, supplying push for the group's sequential growth in Q3 (Table 2, below).

Actual Q3 sales were $342 million (2%) above *MMI*'s estimate for the quarter (Aug., p. 2). *MMI* based its estimates on the midpoint of each company's sales guidance for Q3. Five out of six companies reported sales above the midpoint of their guidance, with Jabil and **Sanmina** exceeding it.

Group revenue for the first nine months of 2018 came in at $77.09 billion, 52.3% higher than this newsletter's estimate of $50.61 billion, and revenue increased 13.9% year over year, compared with estimated growth of 11.2%. All companies succeeded in growing their nine-month sales from the year-earlier period. **Benchmark Electronics** posted the highest growth among the six companies (Table 2).

Five out of six providers follow GAAP accounting rules, while the sixth, Celestica, adheres to IFRS reporting standards. For the five GAAP companies, four were able to raise their gross margin sequentially, while gross margins decreased at all five companies year over year.

Two companies were able to achieve sequential growth in operating margins: Jabil and Plexus. Compared with a year earlier, margin increase occurred only at Jabil. As for the lone IFRS reporting company, Celestica raised its operating margin sequentially but declined year over year (Table 2).

On a sequential basis, GAAP net income for the five companies in Q3 declined much faster than sales grew. Their collective net income of $187.1 million declined 19% from the prior quarter. By contrast, sales went up 4.7%. Two out of five companies were able to boost their net income sequentially.

Flex posted the highest net income, of $86.9 million. On a year-over-year basis, net income decreased by 42%, whereas sales increased by 10.1%. Flex and Sanmina were largely responsible for this decrease. Q3 net margin for the GAAP reporting companies was 1.2%, down 34 basis points sequentially and down 107 basis points year over year.

For the first nine months of 2018, combined GAAP net income for the five companies decreased by 24.2% to $783.7 million. This decrease was much more significant than their 14.7% increase in sales.

Chart 3: US-Traded Group 3Q2018 Sales

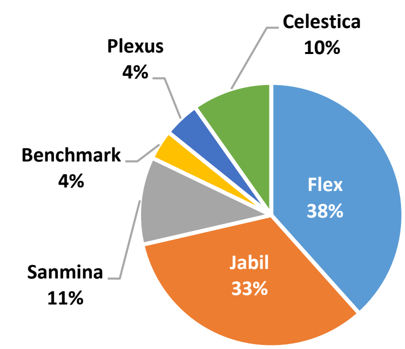


Table 2: Q3 and Nine-Month 2018 Results for the Six Largest US-Traded EMS Providers (US$M or %)

Company	3Q18 Sales	2Q18 Sales	Qtr.–Qtr. Chg.	3Q17 Sales	Yr.–Yr. Chg.	3Q18 Gross Marg.	2Q18 Gross Marg.	3Q17 Gross Marg.	3Q18 Oper. Marg.	2Q18 Oper. Marg.	3Q17 Oper. Marg.	3Q18 Net Inc.	2Q18 Net Inc.	3Q17 Net Inc.	Q1–3 '18 Sales	Q1–3 '17 Sales	Yr.–Yr. Chg.	Q1–3 '18 Net Inc.	Q1–3 '17 Net Inc.
Flex	6,710.6	6,424.0	4.5	6,270.4	7.0	5.7%	5.6%	6.0%	2.2%	2.9%	4.0%	86.9	116.0	205.1	31,489.6	26,964.0	16.8	296.0	423.0
Jabil	5,771.8	5,437.0	6.2	5,023.0	14.9	7.7%	6.9%	8.3%	2.6%	2.0%	2.3%	54.1	42.5	45.7	19,545.4	18,141.3	7.7	183.3	416.7
Sanmina	1,876.3	1,813.4	3.5	1,755.0	6.9	6.8%	6.5%	7.1%	0.9%	2.7%	2.6%	6.7	34.0	25.8	16,509.9	13,958.2	18.3	164.8	41.1
Plexus	771.2	726.4	6.2	669.9	15.1	9.5%	9.3%	9.9%	4.7%	4.5%	5.2%	31.6	26.5	29.0	2,196.2	1,893.0	16.0	70.4	83.9
Benchmark	640.7	660.6	−3.0	603.6	6.2	7.9%	7.9%	9.2%	2.1%	2.4%	3.6%	7.8	10.9	17.5	1,987.1	1,574.5	26.2	69.6	69.4
Subtotal/Avg.	**15,770.6**	**15,061.3**	**4.7**	**14,321.9**	**10.1**							**187.1**	**230.0**	**323.1**	**71,728.2**	**62,530.9**	**14.7**	**783.7**	**1,034.0**
Celestica	1,711.3	1,695.2	0.9	1,532.8	11.6	6.3%	6.0%	8.0%	1.7%	1.6%	2.9%	8.6	16.1	34.8	5,365.3	5,148.6	4.2	65.3	94.0
Total/Avg.	**17,481.9**	**16,756.5**	**4.3**	**15,854.7**	**10.3**										**77,093.5**	**67,679.5**	**13.9**		

All results are based on GAAP except those of Celestica, which has adopted IFRS reporting. With the exception of sales, GAAP and IFRS results are not necessarily comparable. Intangible amortization was subtracted from reported operating income. Net income from continuing operations.

Modest Growth Projected for US-Traded Group

If the six largest US-traded EMS providers hit the midpoint of their Q4 sales guidance, 2018 will be a growth year for the group as a whole. According to *MMI*'s Q4 estimates, which have been set equal to the midpoint of providers' guidance, the group's 2018 sales will increase by 9.4%.

Group revenue for the year is estimated at $68.3 billion, up from $62.4 billion in 2017. If this estimate proves true, then 2018 will mark the second year of increasing sales for the group. Projected 2018 sales remain nearly 6% above a postrecession high of $64.62 billion in 2011. Overall, this sector of the EMS industry seems to have recovered from the Great Recession and prospered.

In order to turn 2018 into a growth year, the six providers must generate Q4 sales of more than $468 million above *MMI*'s estimate for the year. That means the providers would need to exceed the midpoint of their Q4 guidance by more than that amount on a combined basis—a pretty tall order.

MMI is projecting that **Jabil** and **Plexus** will be the providers to achieve highest sales growth at 15.7% and 15.4% for 2018. (In this analysis, Jabil's annual sales run from December to November.) Sales increases at the other four companies are projected to range from slight to modest.

While 2018 may end up with an increase, the estimate for combined Q4 sales offers a positive sign, too. Projected Q4 revenue of $17.95 billion represents year-over-year growth of 5.7%. If such an increase were realized, then Q4 would be the fourth quarter in a row to show year-on-year growth. Four quarters would constitute a trend, showing that this group is heading in the right direction. If the group is truly on a growth trajectory, this will be borne out in the next one or two quarters.

Estimates say Plexus will be the prime mover in the quarterly increase with a 13.7% increase at the midpoint of its guidance. *MMI*'s projections also indicate that two other companies will attain year-over-year growth for their Q4 sales. **Celestica**'s growth is expected to reach 12.7%, while Jabil should manage a 9.2% gain. One company is estimated to report a revenue decline, namely **Benchmark Electronics** with –7.4% (Table 3).

Compared with the previous quarter, the group's Q4 revenue will tick upward by 2.7%, according to *MMI*'s forecast. Sequential increases at Jabil and Celestica will be 5.7% and 2.3%, respectively, with Benchmark and Plexus being the two providers reporting a decline.

Guidance suggests that adjusted EPS for Q4 will improve sequentially at Jabil, and at the midpoint of its guidance, the growth would be 27.1%. One can also infer from guidance that Flex, **Sanmina**, Celestica, and Benchmark expect sequential growth in their adjusted Q4 EPS. At the midpoint of guidance, Plexus would have a decrease of 6.3%. On a year-over-year basis, Q4 guidance implies that adjusted EPS at Sanmina will be the highest, with an increase of 47.9% at the midpoint of its guidance, and Plexus will have the biggest decline, at –130.7%.

Company News

Jean to Split Electronics, Realty Businesses

Jean Group plans to separate its electronics and property businesses, eyeing an initial public offering for its electronics segment within the next two years.

Jean has annual revenue of $63 million and invests 15% in R&D.

The firm has worked with **General Motors, Nissan,** and **Volkswagen**, and its electronics business extends from Asia to North America and Europe.

"We have to take a gamble and put ourselves out there," says Jesse Lin, chairman and CEO. "Otherwise, the

Table 3: 4Q2018 Guidance and Estimates for the Six Largest US-Traded Providers (sales in $B except as noted)

Company	4Q18 Guidance	4Q18 Midpoint	3Q18 Sales	Qtr.–Qtr. Estim. Chg. (%)	4Q17 Sales	Yr.–Yr. Estim. Chg. (%)	2018 Estimated Sales	2017 Sales	Estimated Change	Q4 Guidance Adj. EPS* $	Q4 EPS Midpoint $	3Q18 Adj. EPS* $	EPS Q–Q Chg. at Midpoint	4Q17 Adj. EPS* $	EPS Y–Y Chg. at Midpoint
Flex	6.6–7.0	6.80	6.71	1.3	6.75	0.7	26.35	24.89	5.8	0.29–0.33	0.31	0.29	6.9	0.29	6.9
Jabil	5.8–6.4	6.10	5.77	5.7	5.59	9.2	22.61	19.54	15.7	0.79–0.99	0.89	0.70	27.1	0.80	11.3
Sanmina	1.875–1.925	1.90	1.88	1.1	1.74	8.9	7.27	6.89	5.4	0.68–0.74	0.71	0.67	6.0	0.48	47.9
Celestica	1.7–1.8	1.75	1.71	2.3	1.55	12.7	6.66	6.13	8.7	0.27–0.33	0.30	0.26	15.4	0.24	25.0
Benchmark	610–650 M	0.63	0.64	–1.7	0.68	–7.4	2.54	2.46	3.2	0.32–0.40	0.36	0.33	9.1	0.49	–26.5
Plexus	750–790 M	0.77	0.77	–0.1	0.68	13.7	2.97	2.57	15.4	0.85–0.95	0.90	0.96	–6.3	–2.93	–130.7
Total/Avg.		**17.95**	**17.49**	**2.7**	**16.99**	**5.7**	**68.38**	**62.48**	**9.4**						

Q4 estimates equal midpoint of Q4 guidance. 2018 estimates equal nine-month sales plus midpoint of Q4 guidance. *Adjusted EPS may not be comparable from company to company.

opportunity will not come knocking by itself."

Jean is the parent of JET Optoelectronics, one of the largest car monitor manufacturers in Taiwan.

Nortech Systems' New Plant on Horizon

Two facility-related developments expected to provide long-term benefits are scheduled to conclude by year end: the move of **Nortech**'s Monterrey, Mexico operations into a larger, more efficient facility and the relocation of the **Devicix** by Nortech medical device product development group to an expanded corporate headquarters building in Maple Grove, Minnesota.

Myotek Acquires EMS Firm Amptech

Myotek has acquired **Amptech** for an undisclosed sum. Amptech is a contract electronics assembler serving the automotive, utility, and other industrial end markets and applications.

The acquisition will allow Myotek to provide its customers with domestic production capabilities for its automotive lighting products. Plans are to expand existing Amptech manufacturing facilities in Michigan and Pennsylvania to accommodate customer demand. Amptech's Lee Wyatt will continue to serve as president.

Myotek is a transportation LED lighting designer, manufacturer, and supplier specializing in automotive-forward lighting. In an email to **CIRCUITS ASSEMBLY**, Myotek CEO Eric Showalter called the acquisition of Amptech "a strategic move by Myotek." He added that Amptech would continue to support its existing customers.

Wistron to Build Third Factory in India

Wistron plans to invest more than $20 million in a new factory in India, according to reports. The site would be the third in the country for Wistron, the world's fifth largest EMS/ODM, per the *Circuits Assembly* Top 50.

The new campus will focus on medical electronics, the reports said. Wistron's other plants in India make Apple iPhones.

Wistron reported that second-quarter net income increased 35.1% annually to $40.1 million, while consolidated revenue rose 7.3% to $7.4 billion.

SMTC Acquires MC Assembly, Will Keep All Plants Open

SMTC shook up the electronics manufacturing services industry, announcing its acquisition of **MC Assembly**. SMTC paid $65 million for the privately held MC Assembly, subject to certain adjustments.

MC Assembly shareholders could earn up to $5 million more, contingent upon the performance of the business for the 12 calendar months ending March 31, 2019.

The combined company had consolidated results for the 12 months ended September 30 of approximately $323 million, and approximately $18 million of adjusted EBITDA. SMTC expects the acquisition to be accretive immediately. The consolidated results do not reflect the potential cost savings available from the combination of the two companies, which are pegged at more than $6 million annually.

SMTC paid for the acquisition through a combination of cash and new credit. SMTC secured a new $45 million asset- based revolving line facility from PNC Bank, of which $22 million was drawn at closing. Additionally, TCW Direct Lending provided SMTC with a senior secured loan facility of $67 million, of which $62 million was drawn at closing, with $5 million available on a delayed draw basis. At closing, SMTC's existing bank indebtedness of $27 million was repaid.

SMTC said the merged entity will benefit from greater end-market diversification, including an expanded presence in aerospace and defense, industrial, and medical, plus industrial IoT. They claim a stronger customer base with no significant customer overlap or customer concentration. Moreover, SMTC believes macro-economic trends and the trade/tariff environment are driving "meaningful growth" for North America–oriented EMS providers.

Between them, SMTC and MC Assembly have plants in California, Massachusetts, Toronto, Mexico, and China, with more than 50 manufacturing and assembly lines. The combined company will operate under the SMTC name and currently plans to continue to operate and maintain all existing facilities.

Pegatron Execs Say Trade Tensions Could Force Production Changes

Pegatron is considering moving production from China to its other factories around the world as a way to cope with tariffs and other supply-chain issues.

The world's second-largest ODM says existing sites in the Czech Republic and Mexico are possible landing spots for its existing programs, while the possibility exists that it would launch additional factories in southeast Asia.

Chief executive officer S. J. Liao said on a conference call that the supply chain in China is being disrupted by higher wages and a lack of qualified personnel. He said balancing production across additional regions would ease pressures to increase staffing at critical periods, such as ahead of the holiday season, when major Pegatron customers including **Apple** and **Microsoft** ramp up production.

With regard to the US tariffs on products made in China, the company said the worst could be yet to come. Company CFO Charles Lin said the effects of the US-China tariffs won't be truly felt until 2019.

While production could be moved in a fairly short time frame to existing sites, the process of procuring land and opening greenfield factories in Asia would take two to three years, the firm estimated. Pegatron would seek to share any costs of reallocation with customers, the firm added.

Continental to Open $59M Plant in Mexico

Continental is investing more than $59 million to build an electronic components plant here.

The 258,000-square-foot factory will support the supplier's interiors division, according to reports.

Construction is expected to begin midway through next year, with production planned to start in 2021.

The site reportedly will create 1,000 jobs. Continental had 2017 global sales to automakers of $35.9 billion.

Prima Electronics Purchased for $2.8M

Prima Electronics was purchased by **N J Russel Holdings**, according to reports. Some £2.15 million ($2.8 million) will be used to fund the acquisition and boost cash flow.

Prima directors Tony Hall and Mike Rogers have sold their stake to Nick Russel, who will become chairman. Hall will remain with the business as managing director of the EMS company.

"Prima Electronics is a fantastic business with great prospects for the future," said Russel. "Cambridge is widely known as a hub for tech startup businesses, most of which will not have the capabilities to produce the electronic components needed to develop products.

"The plan now is to build on the solid foundations laid by the directors and expand its services to all areas of the UK."

NOTE Acquires Speedboard for $9M

Electronics manufacturer **NOTE** has acquired all shares in Speedboard Assembly Services for $9.1 million on a debt-free basis, with the possibility of an additional purchase price of $650,000 by 2020.

Sales in the last year were more than $17.2 million. The acquisition is expected to contribute positively to NOTE's growth and profitability in the fourth quarter.

Speedboard has several surface-mounting lines and expertise in box build. The company serves the advanced communication, surveillance, security, and medical technology markets.

Speedboard's UK operations include approximately 100 employees. Former co-owner Neil Owen will continue to act as managing director, and Richard Watson, finance director, will remain for a while to ensure a smooth transition.

GPV Acquires CCS Group

GPV signed an agreement to acquire fellow EMS company **CCS** for some $121.3 million on a debt-free basis.

The agreement is subject to approval and is expected to be completed by the end of 2018.

The CCS Group specializes in electronics, system integration, and cable harness manufacturing. The electronics manufacturer reported revenue of $212.2 million and EBITDA of nearly $15.2 million last year.

With the completed transaction, the firm will have production facilities in Asia, Europe, and the Americas, about 3,700 staff, and combined revenue of about $394.2 million.

TTM Expanding Aerospace, Wireless Units in New York

TTM Technologies will expand the footprint of its **Anaren** facilities in upstate New York, moving its wireless operations to a new facility in an adjacent community.

To support continuing growth in business at its East Syracuse operation, TTM will relocate its wireless business unit from the current location in East Syracuse to a 38,000-square-foot facility in DeWitt, NY. TTM's wireless unit manufactures high-frequency components used in cellular telephone and optical data networks. In a statement, the company said the move will facilitate continuing growth of the business unit, allowing the expansion of engineering staffing and test capabilities for product development as well as expanded production to support 5G communications and other commercial activities.

Flex CEO McNamara to Retire; Search Firm Engaged

Flex announced that chief executive Mike McNamara will retire, effective December 31, 2018.

The board has engaged a search firm to find a new CEO and will be considering both internal and external candidates. Michael Capellas, chairman, will actively assist the company's management with the transition.

"After 24 years at Flex and having had the privilege of serving the past 12 years as CEO, I believe now is the time for me to step back and allow new leadership to continue improving on what we have built," said McNamara. "It has been an amazing journey, as we built Flex into an incredibly powerful company that I am extremely proud of. I want to thank our employees, customers and suppliers for their support throughout this journey."

Israeli EMS Firms to Merge by Year End

PCB Technologies will acquire fellow electronics assembler **AMS** for NIS40 million ($10.8 million) in cash and stock, the companies announced today.

Under terms of the agreement, PCB will pay AMS NIS20 million in cash and will grant four million shares worth another NIS20 million. The deal is expected to close within three months, subject to various conditions.

The deal includes an option for some ASM shareholders to be repaid NIS32 million in owners' loans for shares, and PCB Technologies will allocate nearly 1,100 options, convertible within three years.

Rosh HaAyin–based AMS has 150 employees. It reported operating profits of NIS468,000 and net losses of NIS384,000 on revenue of NIS40 million in the first half. It had operating profits of NIS2.6 million and a net loss of NIS82,000 on NIS79 million in revenue in 2017.

PCB Technologies manufactures printed circuits and assemblies, primarily for security and medical customers. It is also the parent of Cellergy and Precision Circuits. AMS serves the medical, industrial, and communications markets.

PCB Technologies is traded on the Tel Aviv Exchange, while AMS was formerly public but delisted three years ago.

PCB Technologies was itself acquired earlier this year by FIMI Opportunity Funds, a private equity fund led by Ishay Davidi. It has annual revenues of about $100 million and employs 700 workers.

Jabil President Peters to Retire at Year End

Jabil president Bill Peters will retire at year end, the company announced. No replacement has been named.

Peters spent 28 years at the EMS company, the past five as president. He also served as executive vice president, regional president of Americas, and in other operations and purchasing capacities.

"Bill has been an exceptional leader with impeccable values during his extraordinary career here at Jabil," said Mark Mondello, CEO, Jabil. "His deep understanding of our business and his steady hand during times of expansive growth throughout his tenure will be missed for sure."

PA-Based EMS Firm to Pump $2M into Expansion

Homeland Manufacturing Services will move into a new, larger EMS facility in Benner Township and will add 10 more full-time workers over the next three years to meet higher demand.

The EMS company will invest nearly $2 million into the new site, which is expected to raise its workforce to 30. The new facility will be 12,500 square feet and could be expanded in the future.

Homeland's expansion is being funded in part by a $2.65 million low-interest loan from the Pennsylvania Industrial Development Authority (PIDA) and a $13,500 grant to help with job training costs.

Homeland was formed in 2011 and is veteran owned.

Former Autodesk, Flex Execs Behind Robotic Manufacturing Startup

A new startup made up of former **Autodesk** and **Flex** executives plans to roll out a robot-driven platform for manufacturing electronics.

Bright Machines says adaptive software-driven robot cells are the future of manufacturing. The startup has raised $179 million from venture capitalists in support of its efforts to automate factory-level processes. It claims to have put its robots in use at customer sites in half a dozen countries, according to a report by Reuters.

The Bright Machines team includes chief executive Amar Hanspal, former co-CEO of Autodesk, and Lior Susan, who, while at Flex from 2012 to 2015, helped run its SaaS unit and its Lab IX venture funding arm, which incubated more then 30 hardware companies. Joining them on the board is Carl Bass, also a former president and CEO of Autodesk, and chief architect of AutoCAD; and Flex CEO Mike McNamara.

Susan is also founder of Eclipse Ventures, which provided the funding.

Bright Machines says its goal is to make a machine that could take material and convert it into a final product without human intervention or manual labor.

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Manufacturing Market Insider is a monthly newsletter published by New Venture Research Corp., 337 Clay St., Suite 101, Nevada City, CA 95959. Phone (530) 265-2004, Fax (530) 265-1998. Copyright 2018 by NVR™. ISSN 1072-8651

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