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Nine-Month Revenue Increases for Top 12

Double-digit growth for the first nine months of 2019 would suggest that the top 12 EMS providers as a whole will end up with annual growth in 2019.

For the first nine months of 2019, revenue for the 12 largest EMS providers by total sales amounted to $233.9 billion, up 10.5% year over year. This is not quite to the standard of 2018, when growth was 18.3%.

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 4.9% versus an increase of 10.5% including the company (Chart 1). So Hon Hai made the hike improve by 5.6 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 **Jabil**, in that order—will easily retain those positions at year end, barring extraordinary circumstances. **Flex, Sanmina,** and **Celestica** will remain in fourth, fifth, and sixth places, respectively.

However, **Cal-Comp** is a member of the **New Kinpo Group**, whose 2019 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 **Venture** will finish, except to say that, according to 2019 estimates, Plexus will rank ahead of Venture. The eleventh and twelfth spots should go to **Benchmark** and **Shenzhen Kaifa**, respectively.

There were only five top-12 providers whose nine-month sales in US dollars fell from the year-earlier period. Shenzhen Kaifa posted the biggest decline year over year, whereas Hon Hai and Pegatron were able to post double-digit growth (Table 1, page 2).

For the first nine months, the 12 providers together earned net income of approximately $4.3 billion, increased about 20.3% from a year earlier. (The net income total is approximate because not all companies follow the same accounting standard.) Since nine-month sales increased by 10.5% also, net income increased. Net profit increases at four companies outweighed decreases at the eight other companies. Overall net margin for the first three quarters was about 1.9%. Hon Hai contributed about 77.2% of net income for the period while generating 58.1% of sales.

Q3 sales for the top 12 totaled $70.6 billion, up 7.3% sequentially

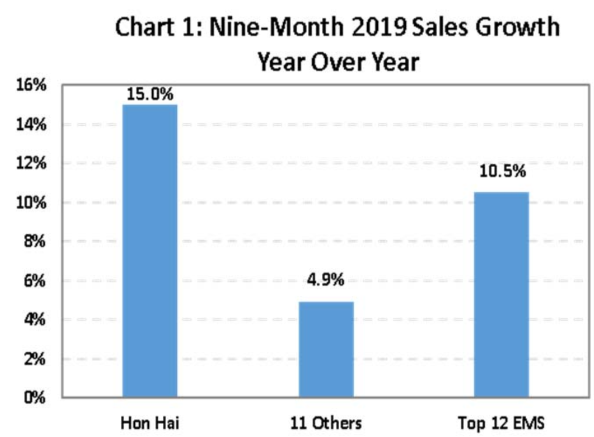

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Table 1: Q3 and Nine-Month 2019 Results for the 12 Largest EMS Providers (US$M or %)

Company (in order of 9-mo. sales)	Head-quarters	Reports in US$	3Q19 Sales	2Q19 Sales	Qtr.–Qtr. Chg.	3Q18 Sales	Yr.–Yr. Chg.	3Q19 Net Profit	2Q19 Net Profit	3Q18 Net Profit	Q1–3 '19 Sales	Q1–3 '18 Sales	Yr.–Yr. Chg.	Q1–3 '19 Net Profit	Q1–3 '18 Net Profit
Hon Hai (Foxconn)	Taiwan	No	39,200	35,635	10.0	36,485	7.4	576	670	591	136,008	118,265	15.0	3,363	2,258
Pegatron	Taiwan	No	10,118	9,941	1.8	9,168	10.4	117	45	99	35,804	29,686	20.6	273	266
Jabil	Florida	Yes	6,573	6,136	7.1	5,772	13.9	53	43	54	18,776	17,715	6.0	164	207
Flex	Singapore	Yes	6,088	6,176	(1.4)	6,663	(8.6)	(117)	45	87	18,395	20,006	(8.1)	(136)	158
Sanmina	California	Yes	1,892	2,027	(6.6)	1,876	0.8	20	43	(0)	6,046	5,878	2.9	104	72
Celestica	Canada	Yes	1,518	1,446	5.0	1,711	(11.3)	(7)	(6)	9	4,397	5,134	(14.4)	77	85
Universal Scientific Industrial	China	No	1,790	1,091	64.1	1,471	21.7	74	26	61	4,089	4,301	(4.9)	136	156
Cal-Comp	Thailand	No	824	844	(2.3)	846	(2.6)	8	3	4	2,679	2,577	3.9	17	4
Plexus	Wisconsin	Yes	810	800	1.3	771	5.1	37	25	32	2,399	2,263	6.0	86	87
Venture	Singapore	No	656	682	(3.8)	582	12.8	64	69	61	2,040	1,985	2.8	202	216
Benchmark Electronics	Texas	Yes	555	602	(7.7)	641	(13.3)	7	9	8	1,760	1,958	(10.1)	30	42
Shenzhen Kaifa	China	No	569	443	28.5	684	(16.8)	19	7	42	1,584	1,893	(16.3)	43	70
Total/Avg.			**70,595**	**65,821**	**7.3**	**66,670**	**5.9**	**852**	**979**	**1,047**	**233,976**	**211,661**	**10.5**	**4,357**	**3,621**
Total/Avg. without Hon Hai			**31,395**	**30,187**	**4.0**	**30,185**	**4.0**	**276**	**309**	**456**	**97,968**	**93,396**	**4.9**	**995**	**1,364**

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 2019 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 5.9% year over year. Seven companies grew their sales from the prior quarter, led by Universal Scientific Industrial with a 64.1% increase, in US dollars. Shenzhen Kaifa was second, reporting a 28.5% increase (Table 1). On a year-over-year basis, seven providers succeeded in growing their Q3 sales. These increases include double-digit gains at Pegatron, Jabil, Universal Scientific Industrial, and Venture. In the quarterly comparison, the presence of Hon Hai was a positive. Excluding Hon Hai, Q3 growth would have been 4%, meaning that the EMS giant added 1.9 percentage points to the top-12's sales growth (Chart 2, at right).

Net income for the top 12 in Q3 amounted to approximately $852 million, for a net margin of about 1.2%. Without Hon Hai, combined net margin would have been 0.87%. Venture recorded a net margin of 9.7%. Top-12 net income decreased about 18.6% year over year, with 5.9% sales growth. Though six 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 six companies.

A similar trend continued in that, on a sequential basis, the top 12's net income decline in Q3 was in contrast to sales growth. Net income declined about 13% quarter on quarter, with sales increasing by 7.3%. The net income declined at six out of 12 providers on a quarter-over-quarter basis (Table 1).

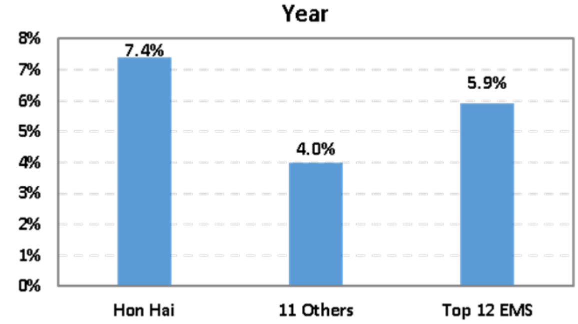
Results for Three Providers

Venture Corporation, Limited recorded revenue of S$869.1 million and net profit of S$85.2 million for the quarter ended 30 September 2019 (+12.8% y-o-y). For the nine months ended 30 September 2019, the Group reported revenue of S$2,701.4 million and net profit of S$266.9 million (+4.8% y-o-y).

Amidst headwinds from geopolitical tensions, the Group had been well positioned to capture growth from selected ecosystems through its differentiated value-creation pathways.

The Group recorded profit before tax (PBT) of S$98.6 million for 3Q2019 (+4.1% y-o-y) and S$310.2 million (+0.5% y-o-y) for 9M2019. Income tax expense for the Group was S$13.2 million for 3Q2019 and S$43.1 million for 9M2019, which include adjustments for tax overprovision in prior years. Net profit (profit attributable to owners of the company) was S$85.2 million (+5.5% y-o-y) for 3Q2019 and S$266.9 million (+1.7% y-o-y) for 9M2019.

Chart 2: Q3 2019 Sales Growth Year Over Year



In 3Q2019, Venture delivered a creditable set of results. Revenue and profit have improved year on year amidst the US-China trade and tariff war, Brexit, currency volatility, and other headwinds.

Over the next 12 months, some uncertainties in the business and geopolitical environment may remain unabated. Venture continues to see some hastened efforts to shift supply chain flows by OEMs for tariff mitigation. The Group does take advantage of these shifts to render support to its partners.

Venture will be supporting several partners in their new and key product launches over the next 12 months. More importantly, the Group expects to see traction in its entries into new technology domains and ecosystems. Venture is optimistic about what these new opportunities may portend in the future. The Group will continue to invest in growing and expanding its differentiating capabilities in selected technology domains and new ecosystems through multilateral partnerships globally.

Sanmina Corporation (NASDAQ: SANM) reported financial results for the fourth quarter of 2019. Net sales increased from $7.1 billion for 2018 to $8.2 billion for 2019, an increase of 15.8%. This increase was driven primarily by stronger demand in each of its end markets and continued stabilization of lead times for supply-constrained parts, which allowed Sanmina to meet customer demand. Net sales had increased from $6.9 billion in 2017 to $7.1 billion in 2018, an increase of 3.5%.

Gross margin was 7.2%, 6.5%, and 7.6% in 2019, 2018, and 2017, respectively. The increase in gross margin from 2018 to 2019 was primarily due to increased revenue levels and improved operational efficiencies. Integrated Manufacturing Solutions (IMS) gross margin increased to 6.4% in 2019, from 6.0% in 2018, due primarily to increased revenue in 2019 and inefficiencies in 2018 in ramping certain new programs. Components, Products and Services (CPS) gross margin increased to 10.0% in 2019, from 8.1% in 2018, primarily due to operational improvements and continued benefits of certain plant closures during the past 18 months.

Selling, general, and administrative expenses were $260.0 million, $250.9 million, and $251.6 million in 2019, 2018, and 2017, respectively. As a percentage of net sales, selling, general, and administrative expenses were 3.2%, 3.5%, and 3.7% for 2019, 2018, and 2017, respectively. The increase in 2019 in absolute dollars was due primarily to higher incentive compensation expense attributable to the company's improved financial performance in fiscal year 2019.

First-quarter fiscal 2020 outlook: Revenue between $1.725 billion and $1.825 billion; non-GAAP diluted earnings per share between $0.65 and $0.75.

Plexus (NASDAQ: PLXS) announced financial results for its fiscal fourth quarter 2019. Fiscal 2019 net sales increased $290.9 million, or 10.1%, compared with fiscal 2018.

Net sales by market sector for the indicated fiscal years were as follows: Net sales for fiscal 2019 in the Healthcare/Life Sciences sector increased $180.1 million, or 17.3%, as compared to fiscal 2018. The increase was driven by overall net increased customer end-market demand, a $32.7 million increase in production ramps of new products for existing customers, and a $26.9 million increase in production ramps for new customers.

Net sales for fiscal 2019 in the Industrial/Commercial sector increased $63.5 million, or 6.9%, as compared to fiscal 2018. The increase was driven by a $64.8 million increase in production ramps of new products for existing customers and a $33.2 million increase in production ramps for new customers. The increase was partially offset by a $7.3 million decrease due to end-of-life products, a $4.2 million decrease due to disengagement with a customer, and overall net decreased customer end-market demand.

Net sales for fiscal 2019 in the Aerospace/Defense sector increased $143.5 million, or 32.2%, as compared to fiscal 2018. The increase was driven by a $120.2 million increase in production ramps of new products for existing customers, a $9.9 million increase in production ramps for new customers, and overall net increased customer end-market demand.

Net sales for fiscal 2019 in the Communications sector decreased $96.2 million, or 20.4%, as compared to fiscal 2018. The decrease was driven by a $37.3 million reduction due to disengagements with customers, a $15.3 million decrease due to end-of-life products, and overall net decreased customer end-market demand. The decrease was partially offset by an $18.1 million increase in production ramps of new products for existing customers and a $4.5 million increase in production ramps for new customers.

Net sales by reportable segment were as follows: Net sales for fiscal 2019 in the Americas (AMER) segment increased $210.4 million, or 17.3%, as compared to fiscal 2018. Net sales for fiscal 2019 in the Asia-Pacific (APAC) segment increased $59.2 million, or 4.0%, as compared to fiscal 2018. The increase in net sales was driven by an $87.3 million increase in production ramps of new products for existing customers and a $58.1 million increase in production ramps for new customers. Net sales for fiscal 2019 in the Europe, Middle East, and Africa (EMEA) segment increased $28.4 million, or 10.1%, as compared to fiscal 2018. The increase in net sales was the result of a $20.2 million increase in production ramps of new products for existing customers, a $4.2 million increase in production ramps for new customers, and overall net increased customer end-market demand. The increase was partially offset by a $6.2 million reduction due to disengagement with a customer.

Net income for fiscal 2019 increased $95.6 million, or 735.4%, from fiscal 2018 to $108.6 million. Net income increased primarily as a result of the $77.3 million decrease in income tax expense, which as noted above was substantially due to the impact of tax reform in fiscal 2018, as well as the increase in operating income.

Tepid Quarter for US-Traded Group

Combined Q3 sales for the six largest US-traded EMS providers rose on a sequential basis but was flat on a year-over-year basis, an outcome that would normally raise eyebrows.

Revenue for the six providers totaled $17.43 billion, up 1.5% sequentially and stagnant year over year. Only **Jabil** exhibited double-digit year-on-year growth. Three companies increased their sales with respect to the prior quarter, with Jabil supplying most of the push for the group's sequential growth in Q3 (Table 2, below).

Actual Q3 sales were $190 million (1.1%) less than *MMI*'s estimate for the quarter (August, p. 2). *MMI* based its estimates on the midpoint of each company's sales guidance for Q3. Only one out of six companies reported sales above the midpoint of their guidance, with Celestica exceeding it.

Group revenue for the first nine months of 2019 came in at $51.77 billion, 0.4% lower than this newsletter's estimate of $51.96 billion, and revenue decreased 2.2% year over year, compared with an estimated growth of 3.5%.

Three companies succeeded in growing their nine-month sales from the year-earlier period. Jabil and **Plexus** 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, three companies were able to raise their gross margins sequentially, while **Sanmina**, Plexus, and **Benchmark** were able to accomplish year-over-year growth.

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

On a sequential basis, GAAP net income for the five companies in Q3 declined much faster in contrast to sales growth, and **Flex** was solely responsible for this decline. Their collective net loss of $0.5 million declined 100% more than the prior quarter. By contrast, sales went up 1.1%. Two out of five companies were able to boost their net income sequentially.

Flex posted the largest net loss, of $116.9 million. On a year-over-year basis, net income decreased by 100.3%, whereas sales increased by 1.2%. Flex was largely responsible for this decrease. Q3 net margin for the GAAP reporting companies was 0.0%, down 10 basis points year over year.

For the first nine months of 2019, combined GAAP net income for the five companies decreased by 56.2% to $247.5 million. This decrease was far worse than their 0.9% decrease in sales.

Chart 3: US-Traded Group 3Q2019 Sales

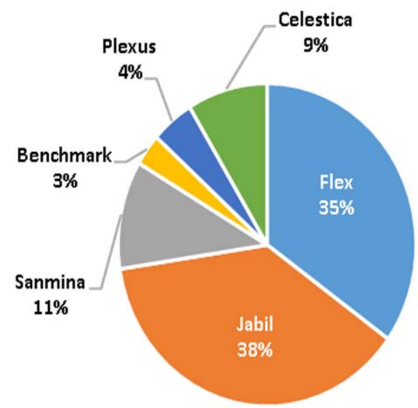


Table 2: Q3 and Nine-Month 2019 Results for the Six Largest US-Traded EMS Providers (US$M or %)

Company	3Q19 Sales	2Q19 Sales	Qtr.–Qtr. Chg.	3Q18 Sales	Yr.–Yr. Chg.	3Q19 Gross Marg.	2Q19 Gross Marg.	3Q18 Gross Marg.	3Q19 Oper. Marg.	2Q19 Oper. Marg.	3Q18 Oper. Marg.	3Q19 Net Inc.	2Q19 Net Inc.	3Q18 Net Inc.	Q1–3 '19 Sales	Q1–3 '18 Sales	Yr.–Yr. Chg.	Q1–3 '19 Net Inc.	Q1–3 '18 Net Inc.
Flex	6,088.1	6,175.9	−1.4	6,662.6	−8.6	4.7%	6.2%	8.4%	1.3%	2.8%	2.6%	−116.9	44.9	86.9	18,395.1	20,006.0	−8.1	−136	158.0
Jabil	6,573.5	6,135.6	7.1	5,771.8	13.9	6.9%	7.0%	7.7%	2.9%	2.6%	3.3%	52.7	43.5	54.1	18,776.0	17,715.1	6.0	163.5	206.9
Sanmina	1,892.2	2,027.0	−6.6	1,876.3	0.8	7.5%	7.3%	6.5%	3.8%	3.6%	2.9%	19.8	42.9	−0.2	6,045.8	5,877.7	2.9	103.6	71.7
Plexus	810.2	799.6	1.3	771.2	5.1	9.6%	8.9%	9.5%	4.8%	4.3%	4.8%	36.8	24.8	31.6	2,398.9	2,263.1	6.0	86.4	87.4
Benchmark	555.2	601.6	−7.7	640.7	−13.3	9.1%	8.4%	7.9%	2.8%	2.6%	2.0%	7.1	9.4	7.8	1,759.7	1,958.3	−10.1	30.4	42.1
Subtotal/Avg.	**15,919.1**	**15,739.8**	**1.1**	**15,722.6**	**1.2**							**−0.5**	**165.5**	**180.2**	**47,375.5**	**47,820.6**	**−0.9**	**247.5**	**565.9**
Celestica	1,517.9	1,445.6	5.0	1,711.3	−11.3	6.0%	6.2%	6.3%	2.0%	1.5%	2.7%	−6.9	−6.1	8.6	4,396.6	5,133.5	−14.4	77.3	84.8
Total/Avg.	**17,437.0**	**17,185.4**	**1.5**	**17,433.9**	**0.0**										**51,772.1**	**52,954.1**	**−2.2**		

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.

Sluggish Growth Projected for US-Traded Group

If the six largest US-traded EMS providers hit the midpoint of their Q4 sales guidance, 2019 will be a dull 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 2019 sales will increase by 0.5%.

Group revenue for the year is estimated at $69.5 billion, up from $69.1 billion in 2018. If this estimate proves true, then 2019 will mark the second year of increasing sales for the Group. Projected 2019 sales remain 7.5% 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 has prospered.

In order to turn 2019 into a growth year, the six providers must generate Q4 sales more than $190 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 that achieve the highest sales growth at 12% and 8%, respectively, for 2019. (In this analysis, Jabil's annual sales run from December to November.) Sales growth at the other four companies are projected to range from slight to unimpressive.

While 2019 may end up with a slight increase, the estimate for combined Q4 sales is not this rosy. Projected Q4 revenue of $17.75 billion represents a year-over-year decline of 6.3%. If such a decrease were realized, then Q4 would be the first quarter to show a year-on-year decline. Four quarters would constitute a trend, whereas this is not the case this time around. The group is truly on a downward trajectory, which will be borne out in the next one or two quarters.

Estimates say **Sanmina** will be partially responsible for the year-over-year decrease, with an 18.9% decline at the midpoint of its guidance. *MMI*'s projections also indicate that two other companies will forfeit year-over-year growth for their Q4 sales. **Benchmark** is expected to decline by 17%, while **Celestica** should show a 14.7% loss. One company estimated to report revenue growth will be Jabil, with 7.6% (Table 3).

Compared with a quarter earlier, the group's Q4 revenue will tick upward by 1.1%, according to *MMI's* forecast. Sequential increases at Jabil and **Flex** will be 6.5% and 1%, respectively, while Sanmina, Benchmark, Celestica, and Plexus will all report declines.

Guidance suggests that adjusted EPS for Q4 will improve sequentially at Celestica, and at the midpoint of its guidance, the growth would be 15.4%. One can also infer from guidance that Flex, Sanmina, Jabil, and Benchmark all expect sequential growth in their adjusted Q4 EPS. At the midpoint of their guidance, the decrease would be 1.1% at Plexus. On a year-over-year basis, Q4 guidance implies that adjusted EPS at Jabil will be the highest, with an increase of 3.3% at the midpoint of its guidance, and that Celestica will have the biggest decline, at 65.9%.

Company News

Wearables to Reach $108B by 2023

Wearable technology continues to gather pace, building an ecosystem of connected devices and capturing consumer attention to the tune of $108 billion by 2023, according to Futuresource Consulting.

"There is no doubt that wearable tech is stealing the CE show," said Stephen Mears, research analyst at Futuresource Consulting. "While the wider CE market is experiencing a general plateau, wearables are in the growth zone. From a retail value of $22.5 billion in 2017, we're forecasting nearly $50 billion

Table 3: 4Q2019 Guidance and Estimates for the Six Largest US-Traded Providers (sales in $B except as noted)

Company	4Q19 Guidance	4Q19 Mid-point	3Q19 Sales	Qtr.–Qtr. Estim. Chg. (%)	4Q18 Sales	Yr.–Yr. Estim. Chg. (%)	2019 Estimated Sales	2018 Sales	Estimated Change	Q4 Guidance Adj. EPS* $	Q4 EPS Midpoint $	3Q19 Adj. EPS* $	EPS Q–Q Chg. at Midpoint	4Q18 Adj. EPS* $	EPS Y–Y Chg. at Midpoint
Flex	6.0–7.3	6.15	6.09	1.0	6.94	–11.4	24.55	26.41	–7.1	0.32–0.36	0.34	0.31	9.7	0.34	0.0
Jabil	6.65–7.35	7.00	6.57	6.5	6.51	7.6	25.78	23.02	12.0	0.82–1.04	0.93	0.88	5.7	0.90	3.3
Sanmina	1.725–1.825	1.78	1.89	–6.2	2.19	–18.9	7.83	7.55	3.6	0.65–0.75	0.70	0.67	4.5	0.83	–15.7
Celestica	1.425–1.525	1.48	1.52	–2.8	1.73	–14.7	5.87	6.63	–11.5	0.12–0.18	0.15	0.13	15.4	0.44	–65.9
Benchmark	520–570 M	0.55	0.56	–1.8	0.66	–17.0	2.30	2.57	–10.2	0.32–0.40	0.38	0.36	5.6	0.41	–7.3
Plexus	780–820 M	0.80	0.93	–14.0	0.91	–12.1	3.20	2.96	8.0	0.87–0.97	0.92	0.93	-1.1	0.91	1.1
Total/Avg.		**17.75**	**17.56**	**1.1**	**18.94**	**–6.3**	**69.52**	**69.14**	**0.5**						

Q4 estimates equal midpoint of Q4 guidance. 2019 estimates equal nine-month sales plus midpoint of Q4 guidance. *Adjusted EPS may not be comparable from company to company.

for 2019, with the category powering on through to account for around 10% of all CE revenues by 2023. That's quite an achievement."

Apple is placed to exploit the wearables landscape, a journey that began five years ago with its acquisition of **Beats** and a move into the premium audio market, says Futuresource. Its longer-running partnership with **Nike** also adds weight, although Apple's emphasis is on building its own ecosystem. Meanwhile, **Samsung** has a firm foothold in key categories and is making volume gains with its wide price point strategy, while **Google's** acquisition of **Fitbit** suggests it is seeking to exploit the wearables and health metrics trend.

Current growth is centered on the connected segments of smart watches, wireless watches, and wearable smart phones, says the research firm. Kids' watches are also an emerging category poised for global growth. The category has already established itself in China. Futuresource expects it to come to prominence in Western markets soon, particularly as telecom operators such as **Verizon**, **T-Mobile**, and **Vodafone** are partnering with kids' watch vendors to bring products to market.

A major midterm trend will be a geographical shift in demand to the Asia-Pacific region, excluding China, with Futuresource forecasting a 40% increase by 2023, to account for 20% of global share. Much of this growth will come at the expense of China's share, which is expected to lag behind that of the wider APAC region.

East West Acquires Boston-Based Adcotron EMS

East West Manufacturing, a design, manufacturing, and distribution company, has acquired **Adcotron EMS** for an undisclosed sum.

Adcotron, a Boston-based provider of electronics manufacturing services, box-build assemblies, testing, and new product introduction services, was founded in 2005.

The deal is East West's first acquisition outside the southeastern US, and is expected to help the firm target new customers in the northeastern US. East West Manufacturing also acquired EMS provider General Microcircuits in January 2019, and Team Manufacturing in September 2018.

The acquisition of Adcotron advances East West's strategic focus on growing its domestic electronics manufacturing capabilities.

"We are excited to partner with Adcotron to expand our manufacturing operations in Boston," said Scott Ellyson, cofounder and CEO, East West. "Adcotron has a phenomenal reputation for putting its customers first and has an established presence in a variety of high-growth sectors such as medical equipment, robotics, and telecommunications. This acquisition allows us to offer our customers even greater domestic, higher mix, lower volume, quick-turn electronic manufacturing services."

East West also operates plants in China, Vietnam, and India.

Foxconn to Focus on Profitability Over Next 3–5 Years

Foxconn says it will give priority to profit improvement, with a goal of increasing its gross margin to 10% over the next three to five years, according to reports.

Currently, the firm is primarily focusing on optimizing its current operation. For the second phase, Foxconn aims to work on digital transformation via automation, digitalization, and smart processing.

Because digital transformation also spans transformation in corporate structure and culture, successful transformation is expected to be about 30%, but some affiliates of Foxconn have begun doing so, according to Foxconn chairman Liu Young-way.

For the third phase, focus will be on electric vehicles, smart medical care, and robotic applications, with a goal of US$1.2 trillion by 2025. Foxconn will use AI, semiconductor, and 5G/6G network technologies to further improve its profitability.

For the first nine months of 2019, Foxconn's consolidated revenues reached NT$3.6 trillion, up 3.4% year over year. Net profit was NT$67.5 billion, up 1.7%.

Fabrinet to Add NPI Center in Israel

Fabrinet signed a lease for a building in Israel, where the EMS firm plans to establish an NPI assembly facility.

The site will offer services similar to Fabrinet West, said Seamus Grady, chief executive.

Fabrinet has a customer base in Israel, and sees an opportunity to attract new ones. The new site, a former semiconductor manufacturing facility, is equipped with most of the infrastructure the company needs for a new product introduction center.

Flex to Expand in India

Flex is planning to invest up to $500 million to expand its manufacturing base in India, according to reports. The firm plans to set up export-oriented facilities, aiming for revenue of $1 billion in the next year.

Flex has more than 25,000 staff and 11 facilities in India already and wants to expand to become a key player in the Digital India program.

According to some reports, the EMS company wants to reduce its exposure in China.

Taiwan's Electronic Components Exports Up 4% in Q3

Taiwanese exports of electronic components grew 3.9% year over year in the third quarter, with IC exports up 8.1%, while other components were down 21.5%.

Overall electronic component exports fell 1% to $80.9 billion year to date through September compared to the same period last year, according to government officials.

For the year, IC exports rose 2% year over year to $71.8 billion, while other component exports, including PCBs, LEDs, solar panels, and capacitors and resistors, fell 20%. Solar panels and capacitors and resistors saw declines of 71% and 29%, respectively, as a result of competition from mainland China sources.

Electronic parts account for about one-third of Taiwan's total exports, say reports.

Foxconn Claims WI Innovation Centers Still a Go

Following Wisconsin Public Radio's report that **Foxconn**'s five proposed innovation centers in Wisconsin were on hold, Foxconn said it still plans to build them, according to other reports.

Foxconn's plans for these technology hubs include Milwaukee, Green Bay, Eau Claire, Racine, and Madison. The company reportedly plans to hire 500 people at the Milwaukee site, with the four other facilities expected to employ between 100 and 200.

Foxconn claims the innovation centers were selected for their proximity to local universities, with graduates serving as candidates for employment.

The firm said its first goal is to build the core of its network in Racine, with hiring to follow. Foxconn did not provide a specific timeline for its plans.

The company's manufacturing facility in Mount Pleasant is expected to open in 2020.

Cree and STMicroelectronics Expand Silicon Carbide Wafer Supply Agreement

Cree and **STMicroelectronics** have announced the expansion and extension of an existing multiyear, long-term silicon carbide wafer supply agreement to more than US$500 million. The extended agreement is a doubling in value of the original agreement for the supply of Cree's advanced 150-mm silicon carbide bare and epitaxial wafers to STMicroelectronics over the next several years.

"Silicon carbide delivers performance enhancements that are critical to electric vehicles and a host of next-generation industrial solutions for solar, energy storage, and UPS systems," said Gregg Lowe, CEO of Cree. "Cree remains committed to leading the semiconductor industry's transition from silicon to silicon carbide, and the extension of the agreement with ST ensures we are able to meet the accelerating, global demand for this solution across a diverse range of applications while accelerating the market."

The adoption of silicon carbide–based power solutions is rapidly growing across the automotive market as the industry seeks to step up its move from internal combustion engines to electric vehicles, enabling greater system efficiencies that result in electric cars with longer range and faster charging, while reducing cost, lowering weight, and conserving space. In the industrial market, silicon carbide modules enable smaller, lighter, and more cost-effective inverters, converting energy more efficiently to promote new clean energy applications.

Contract Manufacturer Esemda Opens New Facility in Vilnius and Expands EMS

Esemda's new facility in Vilnius, Lithuania has been built with reserved space for future expansion. As the company grows, it is of great importance to be able to rapidly increase production capacity to large volumes.

For more than 18 years, Esemda has delivered EMS services to over 250 customers from more than 20 countries. Since the beginning, Esemda has paid strict attention to production speed and quality.

NOTE Continues to Expand within Medtech

One of EMS provider **NOTE**'s Swedish manufacturing plants has received a first order of SEK25 million (€2.34 million) from a Swedish customer within the medtech segment. Delivery is scheduled for 2020.

For about two years, NOTE has, alongside the customer, carried out a development project that is now entering the next phase, as the customer has ordered units for validation and evaluation. If this works out well, there is good opportunity to grow further with this customer in the future, the company states in a press release.

Apple: Shovels Up in Austin

As part of its expansion plan in Texas, **Apple** has announced the beginning of construction at its new campus in North Austin.

According to a recent company press release, the US$1 billion, 3 million-square-foot campus on 133 acres will house 5,000 employees at the outset, with an overall capacity for up to 15,000. The campus is scheduled to open some time in 2022.

Austin is not the only North American site that will see Apple facility development. In January 2018, the company announced its intention to increase investments in manufacturing, engineering, and other jobs across the country, and a plan to contribute US$350 billion to the United States economy by 2023. The company also said it planned to hire an additional 20,000 employees across the US. The company also said at that time it was planning new construction in Seattle, San Diego, and Culver City, California, and named facilities in Pittsburgh, New York, and Boulder, Colorado as targets for expansion.

TT Electronics Steps Up Its US Presence, Acquires Excelitas Unit

TT Electronics has struck a deal to acquire a US-based business that designs and manufactures power electronics for defense and aerospace markets, enhancing its ability to engineer complete power converters.

TT has agreed to acquire **Excelitas Technologies**, a Covina, California–based business, for US$17.7 million.

The acquisition aims to enhance TT's US presence in power electronics for aerospace and defense, providing access to growth programs with sole-source positions. The acquisition will also add a number of blue-chip US defense primes. The company says that it is committed to investing in the Covina unit to further improve the business's growth prospects and engineering capability.

The acquisition is expected to be complete in the first quarter of 2020, following approvals from the US authorities.

Advanced Circuits Relocates, Expands in Tempe

Advanced Circuits has completed its relocation to a leased and fully renovated 50,000-square-foot facility in Chandler, Arizona.

The move, first announced last January, was facilitated by a US$4 million investment and will enable the Aurora, Colorado–based company to better serve the increasing technological needs of customers, a press release said.

The company also said that in addition to the relocation and investment in the Chandler plant, it has invested US$2 million in its Colorado and Minnesota facilities, for a total of more than US$6 million in new equipment, company-wide.

Engo Holdings Opens Phone, PC Assembly Plant in Uganda

Engo Holdings has launched a computer and mobile phone manufacturing plant in Uganda, according to reports.

A memorandum of understanding was signed by Engo Holdings, the National Information Technology Authority - Uganda (NITA-U), and the Uganda Investment Authority (UIA), and construction began July 4.

"We have now moved to develop standards to guide the manufacture of electronics and ICT equipment, including computers and related products," said James Saaka, executive director of the NITA-U. "It is great progress that we are moving Uganda into this ICT equipment manufacturing space, but we must move in tandem with the rest of the world in terms of standards and quality in order to be competitive."

Operations are expected to start with 100,000 gadgets per month, with a target of one million computers annually. Devices will be marketed under the name Simi Mobile.

German EMS Provider Expands with New Plant in Lithuania

Leipzig-based EMS provider **Leesys** is expanding its footprint to new geographical markets as the company prepares to open a new plant in Lithuania.

For its operations in Lithuania, Leesys has chosen the Panevėžys Free Economic Zone (FEZ), where the company's expansion is set to create 40 new jobs over a three-year period, according to a report in *Invest Lithuania*.

Production in Lithuania will be focused on repair, maintenance, and overhaul (RMO) processes. The German company will further adapt, adopt, and improve its processes for serial production of PCBA, plastic parts, and assembled electronic devices and systems, the report states.

Leesys's CEO, Dr. Arnd Karden, says in the report that the company had visited several areas before choosing Panevėžys and Lithuania as the location for its expansion. He points to the talent pool as one of the main attractions of the location.

Publisher: Randall Sherman

Editor: Anna Reynolds

Sr. Research Analyst: Vivek Sharma

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E-mail: rsherman@mfgmkt.com

Website: www.newventureresearch.com