

Manufacturing Market TM

INSIDER

inside the contract manufacturing industry

Vol. 27, No. 4

April 2017

Negative Growth for the Top 25 in 2016

For the ninth time in the past 14 years, combined revenue for the top 25 contract manufacturers (EMS providers and ODMs) declined in 2016. Last year, top 25 revenue totaled \$361 billion, down 4.4% from 2015 (Chart 1). Because the top 25 group accounts for 80–90% of revenue in the outsourcing space, this downward tick in revenue serves as an approximate indicator of how the contract manufacturing market behaved in 2016.

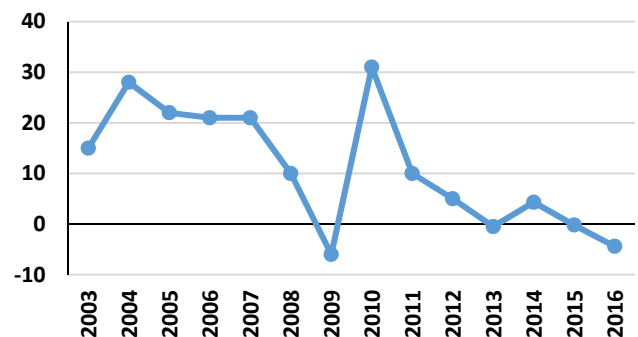
Perhaps more disappointing than the lack of robust growth was the realization that the top 25 as a whole did not keep up with the global economy, which grew at a 3.1% rate in 2016, according to the **International Monetary Fund**. The top 25's underperformance says something about the contract manufacturing space: It can no longer be relied on to outgrow the global economic baseline. Longer-term industry attractiveness is tempered by lack of near-term catalysts. This suggests that expectations have modestly risen, while the fundamental outlook could become more challenging due to slow growth in key end markets such as telecom infrastructure, computing, consumer/smart phones, and semi-cap equipment. Last year it was clear that softness among end markets, along with revenue losses from products at end of life and cost reductions, can offset gains from new programs.

Annual sales growth for the top 25 over the last 14 years has averaged 11.5%. But annual results for the past five years haven't been anywhere near double digits, much less at that level. Once again, the question arises: Are the days of double-digit growth now behind the top 25 and, by extension, the entire contract manufacturing sector?

ODM Providers Outgrow EMS

The top 25 contract manufacturers for 2016 consist of 12 companies whose primary business is EMS—defined here as EMS providers; eight companies that mainly rely on ODM work—classified as ODMs; and a third type that includes five companies that rely on both EMS and ODM work—classified as Mix here. In 2016, the EMS group declined approximately 7.6%. Sales on the ODM side increased slightly, by 0.3%, while mixed business model suppliers experienced a slight decline of 0.2% (Chart 2, p. 4). It's no surprise that 2016 was a tough year overall for both EMS and ODM

Chart 1: Top 25 Growth Rates (%)



groups, given their reliance on the PC market and the market's worst-ever decline in 2016.

For 2016, EMS providers contributed 56.0% of top 25 sales, down from 58.0% in 2015. The primary reason for the share loss was due to some reclassification of company business models and replacement of certain EMS and ODM suppliers at the bottom of the list. Combined revenue on the EMS side amounted to \$203 billion, while the ODM cohort brought in EMS sales of \$93 billion, or 25.7% of the total. Mixed suppliers accounted for \$66 billion in sales, or 18.3% of the total.

As shown in Table 1 on the next page, *MMI* ranked the top 25 contract manufacturers in order of 2016 sales in US dollars. It was significantly easier to make the 2016 edition of the top 25 than the previous year's version. A place in the top

Continued on page 3

Some articles in this issue

Cover Story.....	1
Modest Growth for the Top 25 in 2016	
New Analysis of Market Segments.....	4
Company News.....	7

Table 1: Top 25 Contract Manufacturers for 2016

Business Model	Company	Headquarters	Sales Calendar 2016 (millions US\$)	2016 Rank (millions US\$)	Sales Calendar 2015 (millions US\$)	2015 Rank (millions US\$)	Growth '15-'16 in US\$ (%)
EMS	Hon Hai Precision Industry (Foxconn)	New Taipei, Taiwan	135,201	1	141,227	1	-4.3%
MIX	Pegatron	Taipei, Taiwan	34,137	2	38,231	2	-10.7%
ODM	Quanta Computer	Taipei, Taiwan	27,741	3	31,731	3	-12.6%
ODM	Compal	Taipei, Taiwan	23,795	4	26,692	4	-10.9%
EMS	Flex	San Jose, CA	23,774	5	24,595	5	-3.3%
MIX	Wistron	Taipei, Taiwan	20,478	6	19,634	6	4.3%
EMS	Jabil Circuit	St. Petersburg, FL	18,250	7	18,557	7	-1.7%
ODM	Inventec	Taipei City, Taiwan	10,485	8	12,458	8	-15.8%
ODM	TPV Technology	Hong Kong	9,811	9	11,062	9	-11.3%
ODM	Lite-On	Taipei, Taiwan	7,124	10	6,834	10	4.2%
EMS	Sanmina	San Jose, CA	6,667	11	6,374	12	4.6%
ODM	Delta	Taipei, Taiwan	6,652	12	6,409	11	3.8%
EMS	Celestica	Toronto, ON, Canada	6,017	13	5,639	13	6.7%
MIX	New Kinpo Group	New Taipei, Taiwan	5,779	14	4,423	14	30.7%
ODM	Qisda	Taipei, Taiwan	4,020	15	4,193	15	-4.1%
MIX	USI	Shanghai, China	3,596	16	2,779	16	29.4%
ODM	MicroStar	Taipei, Taiwan	3,171	17	2,687	17	18.0%

EMS	Plexus	Neenah, WI	2,574	18	2,607	18	-1.3%
EMS	Benchmark Electronics	Angleton, TX	2,310	19	2,541	19	-9.1%
EMS	Shenzhen Kaifa	Shenzhen, China	2,160	20	2,447	20	-11.7%
MIX	SIIX Corp.	Osaka, Japan	2,121	21	1,150	24	84.4%
EMS	Venture	Singapore	2,083	22	1,933	21	7.8%
EMS	Zollner	Zandt, Germany	1,384	23	1,304	23	6.1%
EMS	Fabrinet	Grand Cayman, Cayman Islands	1,211	24	845	N/A	43.3%
EMS	UMC	Saitama, Japan	1,026	25	915	N/A	12.1%
Total/Average			361,567		378,043		-4.4%

Companies with multiple businesses were classified as EMS or ODM as indicated by the first acronym in the business model description. Model descriptions are not meant to capture every business a company might pursue. For Taiwan-based ODMs and Hon Hai, converting NT\$ into US\$ was done using average quarterly exchange rates based on US Federal Reserve data.

25 required a minimum of \$1 billion, roughly the same as in 2015. Sales increases among the bottom ranks of the top 25 resulted in a higher cutoff. Interestingly, the cutoff was the highest since 2010 (Chart 3, p. 4). Indeed, it's somewhat understandable that entering the top 25 has become progressively harder over the last several years, but that is what the data shows. On the other hand, the barrier to entry will fall if there are sales declines at the bottom of the previous year's top 25 and any replacements haven't grown enough to support the prior year's cutoff. To *MMI*, this progressive backslide of the cutoff indicates that in the \$1 billion to \$10 billion range, enough CMs have been growing.

At \$135.2 billion in sales for 2016, **Hon Hai Precision Industry** again stood unchallenged atop the top 25. The company's share of top 25 revenue increased in 2016, reaching 37.2% for a loss of 10 basis points year over year. But unlike the previous four years

when Hon Hai gave top 25 growth a substantial boost, in 2016 Hon Hai's effect was unfavorable. Last year, revenue for the 24 companies excluding Hon Hai increased by 3.7% from a year earlier versus an increase of 0.6% for the entire group. Hence, Hon Hai widened the top 25 decline by 310 basis points.

The top 25 order for the top ten did not change in 2016. Only Sanmina and Delta exchanged positions and the rest maintained their position for 12-20. Sanmina's upward move is thanks to increased sales to customers in the industrial, medical, and defense end markets, by 9.7%, primarily as a result of customer program acquisitions. These three market areas have grown to exceed Sanmina's communications networks end market over the past two years as the company continues to diversify its customer base.

There were no new entrants to the ODM group in 2016 compared with the previous year. **UMC** was added to the

top 25 list for the first time.

Sales were down at 12 CMs (Table 1). But five players posted double-digit growth, with **Fabrinet** achieving the highest sales growth, at 43.3%.

Note: The EMS-versus-ODM analysis presented here does not allow for the fact that some companies pursue both EMS and ODM business. Also, the top 25's sales of \$362 billion were not all derived from EMS and ODM work. As shown in Table 1, some companies mix in revenue from other businesses such as components and own-brand manufacturing. To some degree, top 25 sales and growth figures have been influenced by revenue from businesses outside the realm of contract manufacturing. There may be cases where the addition of other business to contract manufacturing revenue might have unfairly boosted a provider's rank.

Chart 2: 2016 Growth Percentages in US\$

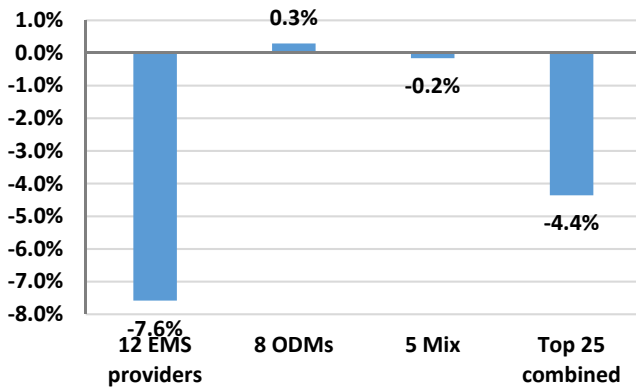
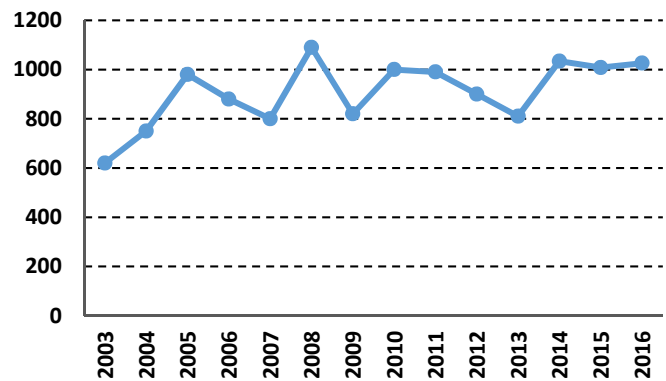


Chart 3: Top 25 Cutoff (Millions USD)



New Analysis of Market Segments

MMI has completed its latest analysis of EMS market segments by utilizing data from its annual Top 50 survey. Data from 40 of the *MMI* Top 50TM EMS providers show that traditional areas comprised the largest source of combined revenue for these players in 2016. The traditional segments—consumer, mobile, and communication commodities—together represented nearly 48%, or just under half of the total sales (Chart 4, p. 6). In a similar analysis of data on 40 of the Top 50 for 2015, the traditional areas also claimed the biggest share of total revenue (April 2015, p. 4). For many providers, these traditional areas continue to be the most productive segments for their business development efforts.

The attraction of nontraditional areas can be seen in the popularity of the industrial segment, which drew 36 out of 40 providers. No other segment in this analysis came close to getting that many “votes.”

Market segment percentages for the forty Top 50 EMS providers appear in Table 2 on page 5. Percentages came directly from the providers’ responses to the Top 50 survey. Ten companies in the Top 50 either did not provide a breakdown of their sales by market segment or supplied data inconsistent with *MMI*’s categories.

Computer and storage took the

Second largest share of the 40 providers’ aggregate sales in 2016. The computer and storage segment accounted for 28.6% of combined sales. One company, **Shenzhen Kaifa**, obtained about 75% of its sales from the segment, while two others, **Global Brands Mfg.** and **Sumitronics**, derived well over 50% of their sales from the segment.

For 18 providers out of 40, the computer and storage segment was one to avoid, which is no surprise. Much of the outsourcing in the computer and storage space is controlled by the EMS giant **Hon Hai**, number-two EMS provider **Pegatron**, and the ODM companies. Their considerable presence in the space shrinks the amount of business available to other EMS providers and even more so for those who eschew high volumes. Still, some providers have carved out niches for themselves within the space.

The nontraditional segments—industrial/defense/security/aerospace, commercial, medical, automotive, and other—took the third largest share of the 40 providers’ aggregate sales in 2016. The nontraditional segment accounted for 16.8% of combined sales. Two companies in particular, **Enics AG** and **Computime**, derived 100% of their revenue from the industrial segment.

Consumer electronics, mobile phones, and other high-velocity products make up another segment that a significant number of Top 50

providers stay away from. Of the forty Top 50 providers in this analysis, 21 steer clear of this segment. Of course, providers that follow a lower volume, high-mix strategy, which is common among players below the top tier, want no part of the high-volume work required in this space. One provider—**V.S. Industry Berhad**—generated 100% of its revenue from the high-velocity consumer segment.

For the Top 50, 2016 was a year of mediocre growth and the same can be said for the four main market segments shown in Table 3 based on the results of this analysis. To see which areas grew and which did not, *MMI* performed an apples-to-apples comparison by using market segment data from 40 companies in both the 2016 and 2015 analyses.

After combining the segment data from the 40 providers for both years, analysis showed that only the consumer sector gained revenue in 2016 versus the prior year and the rest of the segments declined. The consumer, mobile, and other high-velocity segment posted modest growth. The increase can be attributed to **Foxconn**’s inclusion in the analysis this year. The communications infrastructure segment posted the largest decline at –31% compared to last year.

For the 40 providers as a whole, 2016 sales from the nontraditional segments (plus “other”) declined 3.5%. The decline in growth of the nontraditional areas probably indicates lack of new outsourcing opportunities in those areas. In this comparison, the nontraditional areas picked up 100 basis

points of market share in 2016, which increased their share to 16.8% (Table 3, page 6).

Revenue from consumer electronics, mobile phones, and other high-velocity products grew at a lower rate than last year. High-velocity business advanced 0.5%, perhaps a somewhat pleasant surprise in light of slower-than-expected overall growth in world markets. And yet, demand for consumer products in China and other developing countries continues unabated, giving this segment a built-in engine for growth. The high-velocity share of the group's sales was 47.8%, up 440 basis points from 2015.

In this comparison, sales from the communications infrastructure segment declined 31% from 2015, a not unexpected result in that end-market demand in general did not catch fire in 2016. The segment lost 220 basis points of market share in 2016, which brought its share down to 6.8%.

Finally, computer and storage revenue fell 17.8% from a year earlier, while giving up 310 basis points of market share. EMS providers that did business in the PC market had to contend with a decline in PC shipments, which **Gartner** puts at -6.2% for 2016.

The three top-tier providers in this analysis contributed 80% of total sales. As a result, these three providers heavily influenced market segment results for the entire group of 40. What do the market segments look like for providers below the top tier? When these three companies were excluded, a different picture emerges.

For the remaining 37 EMS providers with sales under \$7 billion, the nontraditional areas overall take on greater importance. In 2016, the nontraditional segments (plus other) accounted for 52% of the combined revenue of those 37 providers. This result is consistent with a 2015 analysis of 34 providers, in which the nontraditional areas captured a nearly identical share of 53% (April 2015, p. 6). If these results can be extrapolated to the industry at large, then it can be said that the

Table 2: Market Percentages for 40 of the Largest EMS Providers in 2016

Company	Headquarters	EMS Sales Calendar 2016 (millions US\$)	Automotive	Comm Infrastructure	Comm commodities	Computer & Storage	Consumer	Industrial	Medical	Military/Avionics	Other
Hon Hai Precision Industry (Foxconn)	New Taipei, Taiwan	135,201	1		43	35	19	2			
Flex	San Jose, CA	23,774	2.0	14.8	32.1	12.5	19.6	13.0	4.5	1.5	
Jabil Circuit	St. Petersburg, FL	18,250	5	15	20	29	7	12	8	4	
Sanmina	San Jose, CA	6,667		37		20		27	16		
Celestica	Toronto, ON, Canada	6,017	1	42		26	2	17	3	10	
Plexus	Neenah, WI	2,574		23				30	31	16	
Benchmark Electronics	Angleton, TX	2,310		17		19		49	15		
USI	Shanghai, China	2,286	6		61	17	9	7			
Shenzhen Kaifa	Shenzhen, China	2,160			14	75		6	5		
Venture	Singapore	2,083		20		23		57			
Zollner	Zandt, Germany	1,384	26		1	10	2	42	12	7	
SIX Corp.	Osaka, Japan	1,330	46		1	4		45			5
Fabrinet	Grand Cayman, Cayman Islands	1,211	9	77				11	0		3
PKC Group	Raahel, Finland	936	50								50
Kimball Electronics	Jasper, IN	891	41					22	30	7	
Sumitronics	Tokyo, Japan	815	15		4	59	16	5	1		
Integrated Micro-Electronics, Inc.	Laguna, Philippines	800	45	20		3	11	15	3		3
NEOTech	Fremont, CA	785						51	29	20	
Asteelflash	Neuilly, France	736	28	4		14	4	21	4	5	21
Alpha Networks	Hsinchu, Taiwan	677		30	70						
BCEMS Group	Guangzhou, China	667	17	36			7	31	9		
VTech Communications	Hong Kong	631	1	5	24		37	28	6		
Creation Technologies	Burnaby, BC Canada	630	6	21		6		38	19	4	
V.S. Industry Berhad	Senai, Malaysia	586					100				
Scanfil	Sievi, Finland	562		19				51	14		16
Enics AG	Zurich, Switzerland	555						100			
Ducommun, Inc.	St. Louis, MO	551						6	5	89	
VIDEOTON	Székesfehérvár, Hungary	528	49	2				29			20
Katolec	Japan	490	33		1	19	41	5	1		
Hana Microelectronics	Bangkok, Thailand	483	8	33		25	21	10	3		
Key Tronic	Spokane Valley, WA	482	6	21		4	30	25	12	2	
Newways Electronics (est.)	Son, The Netherlands	462	24					58	16	2	
Orient Semiconductor Electronics	Kaohsiung, Taiwan	458	4	6		35	4	41	8	2	
Computime	Hong Kong	454						100			
WKK Technology	Hong Kong	453	6	15	5	19	31	18	6		
Wong's International Holdings Ltd.	Hong Kong	440				41		53			6
Global Brands Mfg.	New Taipei City, Taiwan	415	3	17		66	15				
éolane	Le Fresne Sur Loire, France	411	10	15				30	15	30	
ALL CIRCUITS	Meung Sur Loire, France	369	71	2.0	6.0		2.0	17	2		
SVI	Bangkadi, Pathumthani, Thailand	352	14	32				43	11		

nontraditional segments supply over half of the revenue for providers below the top tier.

Data from providers below \$7 billion in sales show how the individual segments within the nontraditional category break down for them. For this subgroup of 37 Top 50 EMS providers, the industrial/commercial area furnished

more revenue than any other segment, nontraditional or otherwise. The industrial/commercial segment represented 27.1% of total sales, dwarfing the other nontraditional segments (Chart 5).

Industrial/commercial also came out number one in the 2015 analysis of 34 providers (April 2015, p. 6). Again, if these results can be generalized, then the industrial/ commercial segment has become the number-one revenue producer for providers below the top tier.

Next in size among the nontraditional areas was the automotive segment with 9.1% of revenue. Growth of the global auto industry in 2016 probably contributed to the automotive share. Close behind the automotive segment was the medical segment with an 8.9% share, which was 90 basis points higher than in the 2015 analysis. Over the past four years of analysis, the medical share has ranged from 7.8% to 9%, evidence that the medical business is not gaining market share despite the emphasis that many providers have placed on this segment. Business from the military/avionics segment came in at 4.7% of total sales, showing once more that this business is less significant than the automotive or medical segments, at least for Top 50 providers below the industry's first tier. Business that could not be categorized fell into the smallest segment, Other, which claimed a share of 2.2% (Chart 5).

Analyst's note: This analysis covered providers who sometimes differ as to which products go in what categories. As a result, there is some uncertainty with respect to the results presented here.

Chart 4: Market Mix for 40 Top 50 EMS Providers in 2016

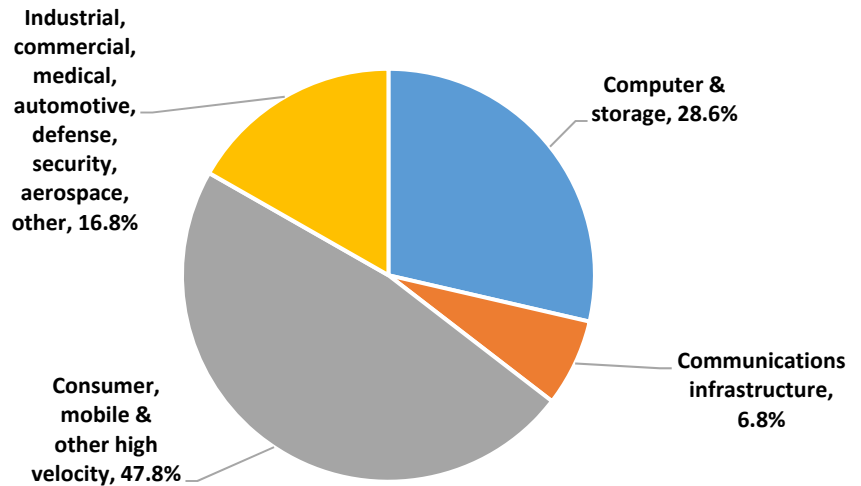


Chart 5: Individual Markets for 37 EMS Providers Under \$7 Billion

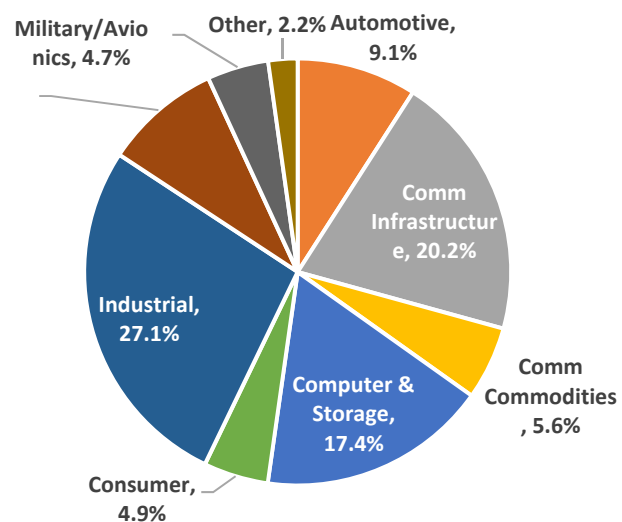


Table 3: A Comparison of Segment Revenue for the Same 40 Top 50 EMS Providers

Segment	2016 share	2015 share	2016 sales (M)	2015 sales (M)	Change
Computing & storage	28.6%	31.7%	63,177	76,877	-17.8%
Communications infrastructure	6.8%	9.0%	15,099	21,884	-31.0%
Consumer, mobile, & other high velocity	47.8%	43.4%	105,613	105,121	0.5%
Nontraditional*	16.8%	15.8%	36,996	38,341	-3.5%
Total			220,885	242,223	-8.8%

* Includes other.

Company News

Neways and the Future of Miniaturization

Existing conventional screen printing techniques can now be applied to structures of less than 50 µm line/gap spacing to ceramic substrates.

This is a breakthrough in the miniaturization of integrated electronics, states EMS provider **Neways Electronics**. The development, initiated by **Neways Group** company **Neways Micro Electronics**, makes electronic connections between fine-pitch integrated circuits (or advanced IC packages) on minimal surfaces possible. The use of lithographic techniques also makes this a cost-efficient process.

What makes this project special is that Neways abandoned conventional methods—which have been in general use for 20 years—and that allowed it to take a fresh look at advanced lithographic techniques. A combination of these techniques creates unique hybrid circuits with extremely fine structures that can be produced at conventional, low costs. This will enable it to meet the growing demand for ever smaller and more integrated electronics in the period ahead, as reported by *Evertiq*.

Stefan Hedelius Resigns as NOTE's CEO

Stefan Hedelius will formally resign as CEO effective 30 April. The company's CFO Henrik Nygren will take over as Interim CEO until Per Ovrén takes up his position, which will be done as soon as possible.

Per Ovrén joins **NOTE** from the group management of northern European car dealership and servicing provider **Bilia AB**, where he heads up business development, sourcing, and business control. Stefan Hedelius will put his services at the disposal of the company until 15 September for the transition to Per Ovrén and to complete a number of ongoing projects and activities.

PKC Group Expands with Acquisition of Fortitude Industries

PKC Group has signed and closed a contract to buy the rolling stock electrical distribution system company **Fortitude**

Industries, Inc. in the state of New York. The deal includes 100 percent of the shares of Fortitude Industries, Inc. (doing business as **Advanced Transit Manufacturing** – “ATM”), which has been acquired from Margaret and Barry Walsh.

The acquisition is in line with PKC's strategy to become the global leading electrical commodity system supplier for the rolling stock market, which is valued at €2 billion per annum. The deal gives it immediate access to the North American market, which is valued at about €500 million per annum for electrical cabinets, power packs, and electrical distribution systems and is expected to grow with more investment into infrastructure and public transportation in the near future.

The net debt-free cash purchase price is \$9.25 million and the purchase price is financed with PKC Group's cash resources.

Apple May Team with Foxconn to Bid on Toshiba Memory Chip Business

Apple is considering joining **Foxconn** in a bid to buy Toshiba's memory chip business, according to published reports.

Apple may invest several billion dollars and is reportedly seeking more than a 20% stake. Foxconn would take a 30% stake, and Toshiba would maintain a partial stake, say reports.

Toshiba is trying to sell its chip business to raise cash after massive cost overruns from its US nuclear power unit, Westinghouse, which filed for bankruptcy last month.

IMI Acquires 80% of STI Enterprises

Integrated Micro-Electronics, Inc. has entered into an agreement with the shareholders of **STI Enterprises, Limited**, to acquire an 80 percent stake in STI, subject to completion conditions.

STI is a private limited company based in the United Kingdom that provides electronics design and manufacturing solutions in both printed circuit board assembly and full box-build manufacturing for high-reliability industries. The company currently has

two factories in the United Kingdom, in Hook and Poynton, as well as one in Cebu, Philippines, and operates a design center in London.

IMI is pursuing this value-enhancing acquisition to expand its customer base into the aerospace and defense segments and to support its market specialization strategy in the industrial segment. As regional manufacturing picks up steam, the company is expanding its operations to locations near its global customers in the United Kingdom and growing its support from its Philippines home base.

Compal Becomes a Strategic Partner of LeEco

In a move to protect the interests of its shareholders, **Compal Electronics** has announced a plan to invest CNY700 million (US\$101.65 million) to take a 2.15% stake in **Leshi Zhixin Electronic Technology**, a TV manufacturing subsidiary of China-based TV/video network **LeEco**.

Compal appears to have turned part of the debts that LeEco owed the company into equity investment, according to industry sources.

As of September 30, 2016, LeEco owed Compal NT\$8.29 billion (US\$274.52 million) in account receivables. Compal is a smart phone subcontractor for LeEco. Compal booked NT\$360 million and NT\$695 million as bad debts in the third and fourth quarters of 2016, according to the company's filing with the Taiwan Stock Exchange (TSE).

However, LeEco has been paying its debts regularly since November 2016 and has returned nearly 50% of the total debts to Compal, said Compal president Ray Chen at the company's latest investors' conference.

Chen also stated that the investment in LeEco will help expand the cooperation of the two companies from smart phones to include IoT, virtual reality (VR), and other devices. Compal is also evaluating the possibility of producing TVs for LeEco.

Compal also does not expect to book any more bad debts from LeEco in the first quarter of 2017, as the China-based TV network is paying the debts regularly, Chen added.

The transaction is expected to be completed before June 21, as reported by *DigiTimes*.

Compal Becomes Second OEM for Apple Watch, Says Paper

Compal Electronics has landed orders for the **Apple Watch**, becoming a second OEM for the smart wearable device, according to a Chinese-language *Economic Daily News (EDN)* report.

Compal will produce Apple Watch and Apple Watch Series 2 units to account for 20–30% of total shipments initially, and is setting up assembly capacity at its factory in Kunshan, eastern China. Compal will begin shipments as early as the fourth quarter of 2017. **Quanta Computer** is currently the sole OEM for Apple Watch, and Apple's move to add Compal is likely to decrease Quanta's price bargaining power as well as increase total assembly capacity due to an optimistic sales outlook for the device, *EDN* indicated.

Flex Opens Design Center in Israel

Flex opened a new design center in Israel, inaugurated last month.

It is the only Flex center in the EMEA (Europe, Middle East, Africa) region that offers a range of

sketch-to-scale capabilities, according to published reports. Customers can oversee production from first design sketch to manufacture and shipment of goods. The center expects to employ 60 design engineers by the end of the year; it currently employs 40.

The center will offer design and engineering services; new product development; electronic, optical, and industrial design; and mechanical engineering.

LACROIX Acquires a Stake in Firstronic

LACROIX is going "multicontinental" by acquiring a stake in the electronics manufacturing services (EMS) provider **Firstronic LLC**, based in Michigan.

The group is creating a subsidiary, **LACROIX North America, Inc.**, and the first joint activities are scheduled for spring 2017.

This will help accelerate **LACROIX's** international development outside of Europe. **Firstronic** is a concrete response to the requirements expressed by **LACROIX's** strategic customers.

Jabil to Acquire Ericsson India's Electronics Manufacturing Business

Jabil India's proposed acquisition of **Ericsson India's** electronics manufacturing business has been

approved, according to reports.

Jabil India is expected to acquire **Ericsson India's** PCBA assembly and test and repair businesses for its radio base station modules, and transmission and access products, currently manufactured in Jaipur.

This is one of three deals that the domestic Competition Commission approved.

Publisher: Randall Sherman

Editor: Anna Reynolds

Research Analyst: Vivek Sharma

Board of Advisors: Michael Thompson, CEO, I. Technical Services; Ron Keith, CEO, Riverwood Solutions; Andy Leung, CEO, VTech Holdings, Ltd.

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 2017 by NVR™. ISSN 1072-8651

The information and analysis presented here are based on sources believed to be reliable, but content accuracy is not guaranteed. The publisher shall not be held liable for any business decisions influenced by this publication.

E-mail: rsherman@mfgmkt.com

Website: www.newventureresearch.com

Subscription Form

I want an electronic subscription to **MMI**. Email me 12 monthly issues (PDF files) for the annual cost of US\$615.

I want a print subscription to **MMI**. Send me 12 printed issues for the annual cost of US\$715.

Payment is enclosed to New Venture Research Corp.

Mail or fax to: NVR Corp., 337 Clay St., Nevada City, CA 95959. Phone (530) 265-2004, Fax (530) 265-1998.

Please bill me. Charge my credit card (see below).

Name _____ Title _____

Company _____ Phone _____

Street Address _____ Fax _____

City/State/ZIP _____ Email _____

MasterCard _____ Visa _____ AMEX _____ Number _____ Expires _____