

# Moderate slowdown following fall busy season



Jon and Walt Custer

In spite of inflation fears and higher interest rates world GDP growth remained strong in the second quarter (Chart 1). There are signs of slowing - but nothing major yet.

Based upon a composite of 61 large, global OEMs, 2Q'06 electronic equipment revenues increased 8% vs. the same quarter in 2005 (Chart 2). The largest end markets (personal computers and mobile phones) continued to grow but at a slower pace. Developing nations drove 2Q'06 cell phone

increases (Chart 3). However as OEM sales continued to grow, inventories increased to worrisome levels for component distributors, semiconductor makers and EMS companies. OEMs have clearly shifted the inventory burden to their suppliers (Chart 4).

European component demand remained surprisingly strong in the second quarter as DMASS (Chart 5) reported in mid-August that "With a sales growth of almost 20%, the 2nd quarter of 2006 has been

another positive surprise for the European semiconductor distribution market."

Using chip shipments as a measure of electronic assembly growth, demand continued to increase in July (Chart 6) although virtually all the chip growth was in SE Asia (Chart 7). As demand improved wafer fab utilization (Chart 8) rose to 91.2% in 2Q'06.

During the second quarter SEMI equipment revenues (Chart 9) rose 20%, driven by memory chip expansions. Since



Chart 1.

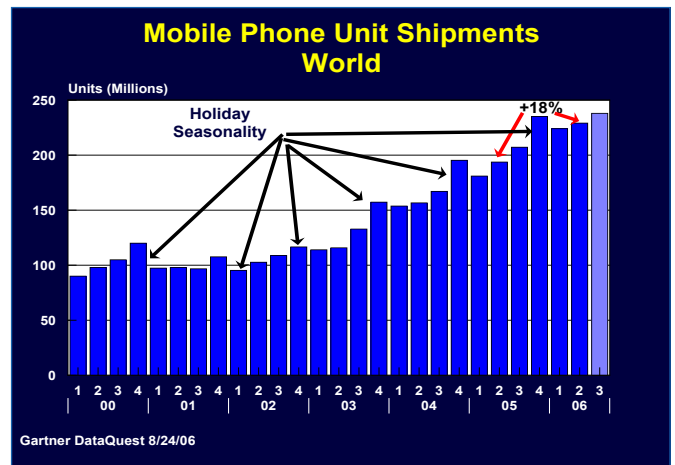


Chart 3.

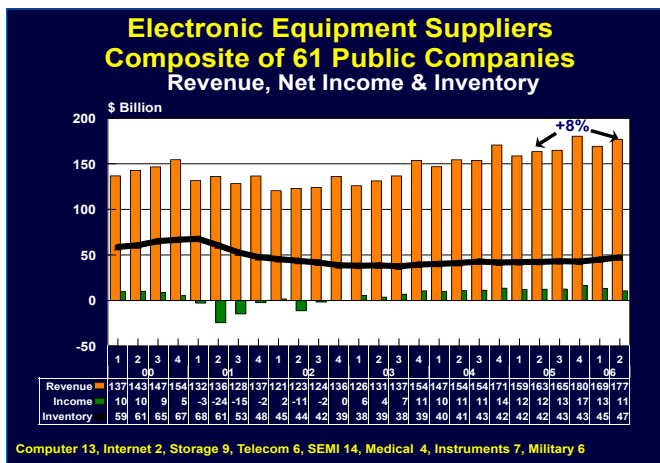


Chart 2.

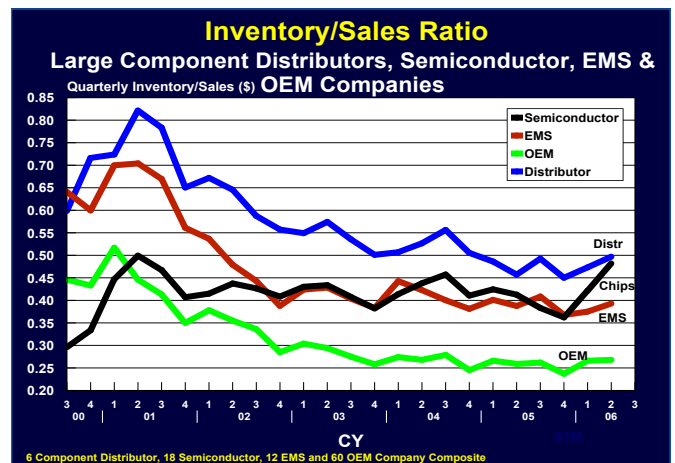


Chart 4.

chip 'back end' equipment typically is a leading indicator for SEMI CAPEX, Kulicke & Soffa's quarterly sales patterns and future guidance (Chart 10) are worth watching. K&S peaked in 4Q'05 but recently raised its 3Q guidance. The 'K&S leading indicator' signals a SEMI slowdown but not as bad as previously expected!

**General business conditions**

Russia is setting up a series of high-tech industrial parks. The original plan was to construct parks in seven Russian regions. This park network is expected to be completed over ten years, with about 19,000 jobs created by 2008 and 75,000 by 2011. Park output is forecast to reach 117 billion rubles (\$4.4 billion) by 2011.

Worldwide mobile phone sales totaled 229 million units in 2Q'06, up 18.3% from 2Q'05, according to Gartner. This compared to a 23.8% increase in 1Q'06. Gartner said it had expected the slight slowdown compared to Q1 and that its mobile phone sales forecast is still on track

to reach 960 million units in 2006, with 238 million units in 3Q'06.

DRAM inventory days in Taiwan and China dropped to new lows in early September due to "process transition issues among some memory makers and increased demand." DRAM makers estimate that the shortage will likely persist for several months

Semiconductor Industry Association principal analyst Doug Andrey in August reduced the SIA's global estimate of 2006 chip shipments (Chart 11) from 9.8% to less than 6%. "Second-quarter revenue growth was lower than we anticipated," Andrey said in a panel discussion sponsored by SEMI. He predicted 2006 chip shipments of \$240 billion rather than \$250 billion given in the SIA's 6/06 forecast. Price degradation of Intel and AMD microprocessors (due to market share battles) and a major inventory glut are two key reasons.

World semiconductor sales were \$20.1 billion in July, up 11.5% from July 2005.

July 2006 rose 1.8% from June 2006. "The worldwide semiconductor industry is on track to surpass \$240 billion in sales this year, which represents a new record," said SIA President George Scalise. "Growth continues to be strong across a broad range of end markets and geographic regions as well, particularly Asia Pacific which is up over 13% year on year, and the U.S. where sales increased almost 18% over last year," said Scalise. "Capital spending and capacity utilization continue to be in balance," Scalise noted. Capital spending in 2006 is expected to amount to approximately 22% of semiconductor sales, which is in line with anticipated technology requirements and anticipated sales growth. Capacity utilization edged up slightly in the second quarter of the year, from 89% to 91%, with leading-edge capacity at 97%. "July sales reflect the historical pattern for the industry with growth in unit demand coupled with declining average selling prices. This trend helps make possible the very attractive

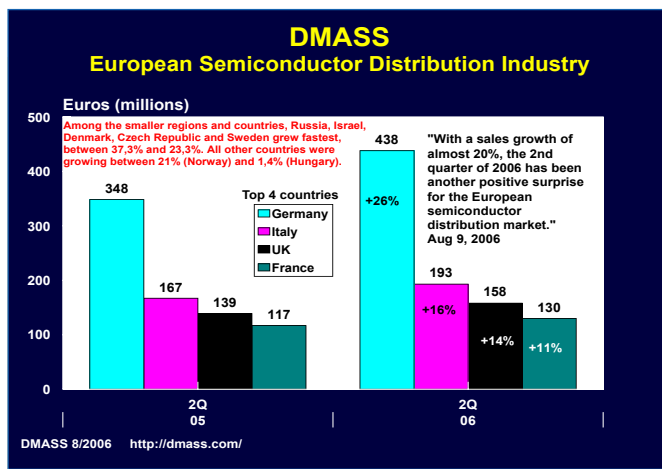


Chart 5.

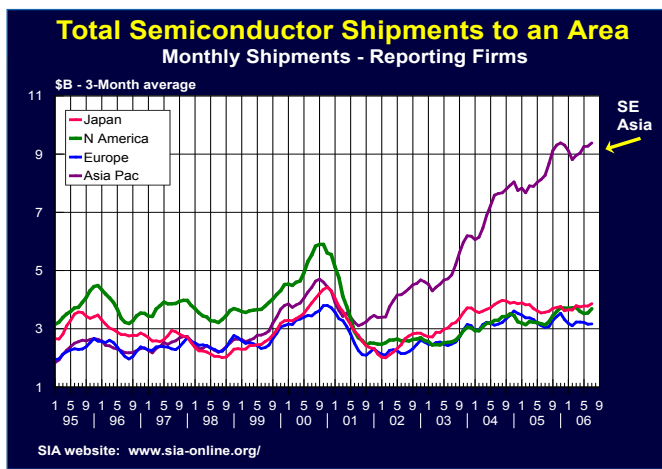


Chart 7.

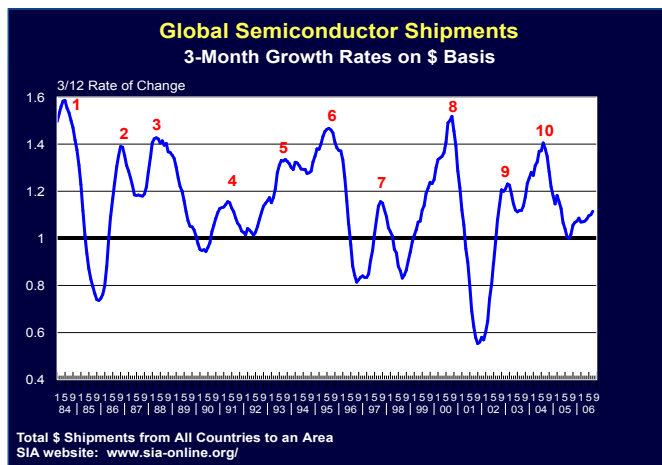


Chart 6.

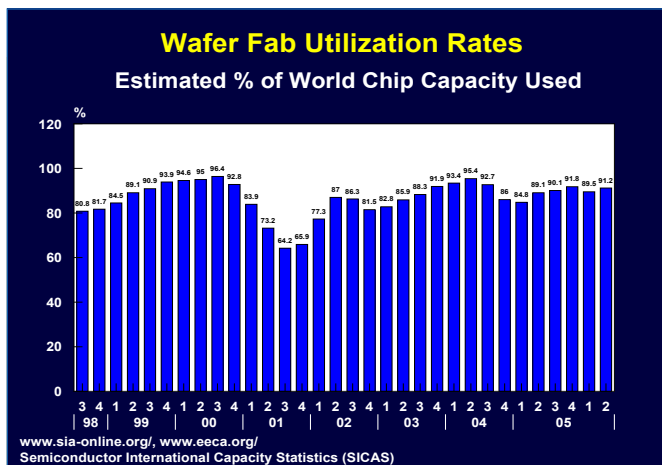


Chart 8.

prices for many consumer products. For example the average selling price for a PC declined by approximately 7% year over year," noted Scalise. Computer products represent over 40% of demand for semiconductors.

**EMS & related assembly activity**

**AdvantechAMS** will manufacture low to medium volumes of Fiber-to-the-Home modems for Enablance Technologies.

**Asustek and Gigabyte** formed a motherboard and graphics card JV that will have an initial capital investment of US\$244 million (51% Gigabyte and 49% Asustek) and is scheduled to be operational on January 1, 2007.

**Asustek Computer** is separating its brand name division from its EMS business.

**Barco** sold its electronics manufacturing division and manufacturing plants in Belgium and the Czech Republic to IPTE SA.

**BB Electronics** hired Keith Taylor as new General Manager for its Suzhou, China facility.

**Celestica** will close its Castle Farm EMS Campus in Priorslee, England by November.

**Cencorp** reorganized global manufacturing including discontinuing US operations and transferring the manufacturing of Cencorp 1000 SR and Cencorp Datum products to Virkkala, Finland.

**CirTran:**

- received a \$2 million payment from ANAHOP in accordance to their restricted common stock purchase agreement.

- secured \$1.5 million in financing through a securities purchase agreement with Cornell Capital Partners.

**Delphi** used retirement and buyout options to cut 6,300 IUE-CWA U.S. hourly jobs.

**Digital Circuit Solutions** moved to a 70,000 SF facility at Globe Center industrial park near Raleigh-Durham, NC.

**Efore Plc** is discontinuing production in Saarijarvi, Finland, and transferring production to Estonia and China.

**ELEKTROAPPARAT** is building a R600

million PCB factory.

**Elektrobit** is moving Finland operations to Estonia and China - eliminating 55 jobs.

**Elitegroup Computer System:**

- is investing a total of US\$4.39 million in Haier Information Technology (Shenzhen). Total stake is 16%.

- board of directors approved a NT\$3.52 billion (US\$109 million) Uniwill merger. Vice chairman of Uniwill Computer David Chen was appointed president of new notebook division.

**Fawn Electronics** will replace a plant destroyed by a fire earlier this year with a new facility in Nashville, Tennessee.

**First Hi-Tec Enterprise** is anticipating GPS applications to account for 35% growth revenues in 4Q.

**Flextronics:**

- \$100 million handset manufacturing facility in Sriperumbudur, India, on track to be inaugurated in October or November.

- and Kodak signed an outsourcing deal that includes design, manufacture, and distribution of Kodak's consumer digital cameras and the transfer of Kodak's Chino and Yokohama, Japan and Shanghai, China facilities to Flextronics.

- CEO McNamara is eligible for a onetime bonus of \$750,000 to \$1 million at the end of the company's 2009 fiscal year.

- purchased Taiwanese server motherboard firm Iwill.

- signed agreement to manufacture main logic boards for Psion PLC.

**Forth Corp Plc** will sell 93.9 million shares in an IPO.

**Hon Hai:**

- will issue NT\$18 billion (US\$562 million) of negotiable bonds at the conversion premium of 35-50% in Taiwan.

- reduced a libel suit against two Shanghai journalists that accused

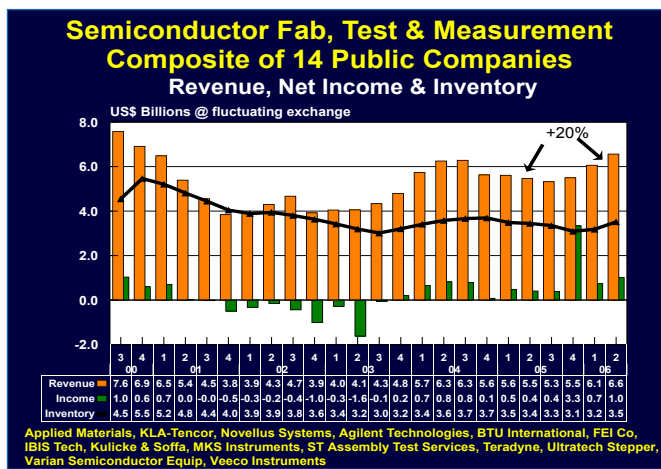


Chart 9.

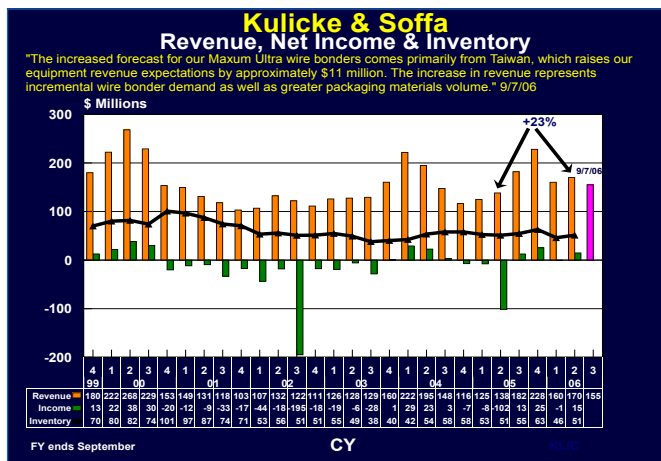


Chart 10.

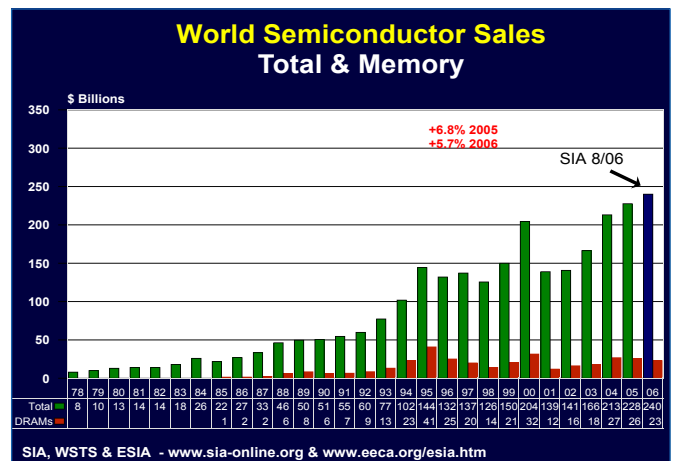


Chart 11.

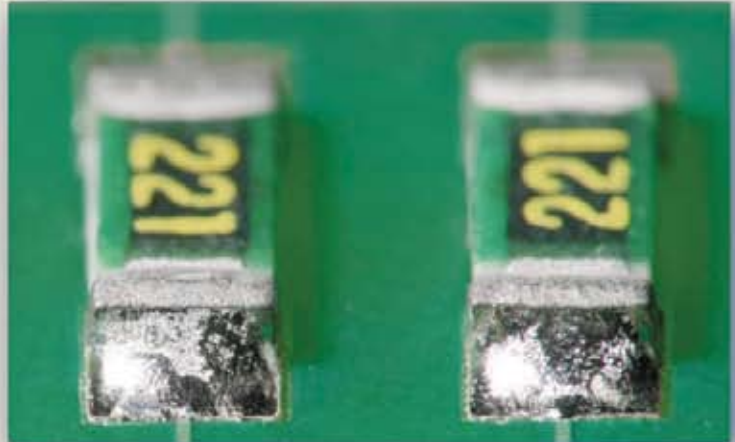
*Who Says Lead-Free Is Dull?*

# Kester's EnviroMark 907

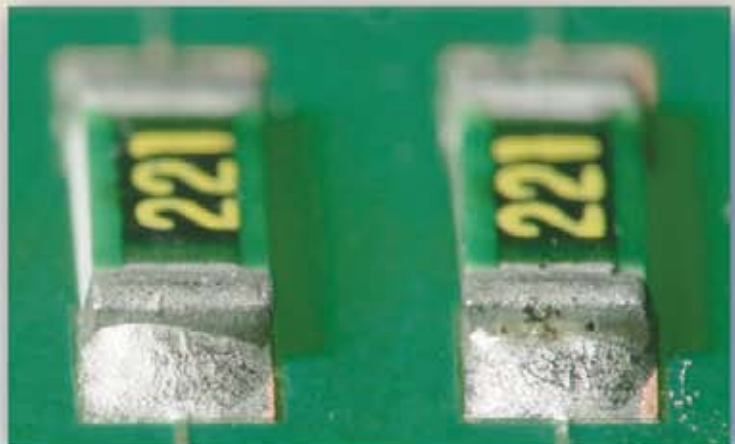
## Bright Solder Joints and a Whole Lot More

Kester's EM907 No-Clean Lead-Free Solder Paste is designed to exceed customers' expectations for high yield lead-free manufacturing. EM907 is a newly engineered product specifically for the high thermal demands of assembling with lead-free alloys such as the family of SnAgCu (SAC).

- Lead-free joints that are cosmetically bright as SnPb joints
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- Anti-slumping to eliminate bridging and micro-solderball potential
- Excellent printing characteristics to 16 and 20 mils pitch (0.4 and 0.5 mm)
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- Light colored residue
- Designed for air reflow as well as nitrogen
- J-STD-004 Flux Classification ROL0



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Hon Hai of violating workers' rights in its iPod manufacturing facility.

**India's** contract manufacturing now qualifies for tax collection at source taxed at 2% of the payment's value.

#### **Integrated Performance Systems:**

- entered into a \$10.5 million debt facility with Amegy Bank of Texas.
- received a \$12 million 2-year EMS agreement with The Invensys Group.

#### **Jabil:**

- sold its vacant 357,000 SF facility in Meridian, Idaho for \$15-million.
- CFO Forbes Alexander sees Jabil building six new factories and hiring up to 60,000 more employees in the next three years.

**Kimball Electronics** opened its new 132,400 SF assembly facility in Nanjing, China.

**Kitron ASA's** subsidiary, UAB Kitron entered into a 2-year manufacturing agreement with Policom worth NOK16million.

**LaBarge** received an industrial test equipment PCB order worth \$1.6 million via an exclusive manufacturing agreement with ZTEC Instruments.

**Lövånger Elektronik AB** bought a new MY12 from Mydata for its newly acquired Järlåsa manufacturing facility.

**Metronic Global** bought Newtronics Hangzhou and Hangzhou HengAi Electronics for RM14 million to expand telecom equipment manufacturing capabilities in China

**Motorola (China) Electronic** won an intellectual property case in the Shanghai No. 2 Intermediate People's Court against former partner Shanghai DB Tel regarding a PCB design drawing.

**Neonode** terminated its outsourcing contract with Note AB.

**NOTE Oslo** appointed Björn Furu president.

**PartnerTech** will manufacture Ion Mobility Spectrometry units for Isonics.

#### **Sanmina-SCI:**

- cut 50 engineering and administrative jobs in Huntsville, AL.
- received a NASDAQ notification for failing to file its 10-Q on time because of an internal investigation regarding its stock option practices.
- requested a waiver for senior subordinated notes from note holders.
- was awarded MIL-PRF-31032 certification at its San Jose, California, facility by the Defense Supply Center, Columbus.

**Schlafhorst Electronics** added an additional SMT assembly line including an EKRA X5 screen printer, three Juki

assembly systems, one Rehm V8 reflow oven and multiple Asys handling systems.

**Simclar** received notice of potential delisting in August for failure to timely file its quarterly report on Form 10-Q on June 30, 2006.

#### **Solectron:**

- cut 70-80 jobs from its repair department in Cestas, France, and transferred the remaining 200 jobs to its plant in Hungary.
- replaced a \$500 million credit facility with a more favorable 3-year, \$350 million revolving credit facility.

**Surface Mount Technology** incorporated SMTech in Tianjin, China, and Prompt Reaction in the British Virgin Islands.

**Team Specialty Products** opened a new \$2.5 million, 22,000 SF addition to its facilities at Sandia Science and Technology Park, New Mexico.

**Toa TDK** is investing 350 million yen for RoHS compliant PWB assembling lines **TXP** hired Eric Miscoll as VP to focus on strategy & operations.

#### **Materials & process equipment**

**Albemarle** raised flame retardant prices by up to 15% on Oct. 1, 2006.

**Autron** sold its electronics manufacturing equipment distribution business in North Asia and India to North Asia Strategic Holdings for US\$60 million cash.

**Barco** sold its Prints activity of Barco Manufacturing Services to Elprintar. Manufacturing will continue at the Poperinge facility

**Henkel** received the National Productivity Corporation's 2006 Productivity award from Malaysia's Ministry of International Trade and Industry for superior levels of productivity and process efficiency.

**Horiuchi Denki** commercialized a new CO2 laser marking system for PCB traceability.

**Huntsman Advanced Materials** introduced two halogen-free laminating resins suitable for lead-free soldering processes.

**Isola** experienced 40%+ growth quarter-over-quarter for 2005 and 2006 for lead-free capable laminates.

**Kingboard Chemical** will spin off its HK laminates operation in 4Q'06.

**Nano-Proprietary** formed a research agreement with a leading industrial chemical products company to develop technical inks for PCBs, flexible electronics and displays, communications instrumentation and RFIDs.

**Nordson's Asymtek** promoted John Byers to president. Former president Robert Ciardella became an advisor.

**Qmax Test Equipments** is selling

automated test equipment in the U.S. under the Wayne Kerr Qmax brand.

**Rogers Corporation and Thermal Transfer Composites** entered into a strategic partnership regarding metal matrix composite products for electronic thermal management applications.

**Shin-Etsu Chemical** developed a heat-resistant epoxy adhesive for semiconductor packages and PCBs.

**Sony Chemical** developed a new chip-mounting method that uses anisotropic conductive film materials to mount components on circuit boards.

**Sumitomo Heavy Industry's** new high speed carbon oxide laser system for the micro hole drilling of HDI circuit boards is capable of 2000 hits per second.

**Francisco Partners** signed a definitive agreement with Dover Technologies International, a subsidiary of Dover Corporation to acquire Universal Instruments Corporation. Francisco Partners is a global private equity firm focused exclusively on investments in technology and technology-enabled businesses. Universal will continue to operate under its current management team.

*Walt Custer is an independent consultant who monitors and offers a daily news service and market reports on the PCB and assembly automation and semiconductor industries. He can be contacted at: [walt@custerconsulting.com](mailto:walt@custerconsulting.com) or visit [www.custerconsulting.com](http://www.custerconsulting.com)*

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