

## Dead Lines

Trends in the U.S. electronics equipment market (shipments only).

	% Change			YTD
	Sept.	Oct. <sup>f</sup>	Nov.*	
Computers and electronics products	-2.7	3.4	0.5	12.8
Computers	8.5	11.3	-5.7	15.9
Storage devices	1.8	-2.5	1.1	11.7
Other peripheral equipment	-14.1	9.3	-1.6	5.5
Nondefense communications equipment	-8.4	-0.4	2.3	9.3
Defense communications equipment	-1.8	46.2	-35.7	22.0
AV equipment	-7.7	8.5	2.8	2.3
Semiconductors	-8.6	5.9	2.5	20.8
Components <sup>1</sup>	-0.3	0.2	6.2	9.6
Nondefense search and navigation equipment	6.6	0.2	0.2	8.7
Defense search and navigation equipment	1.2	-0.4	3.6	9.7
Medical, measurement and control	-1.3	-1.8	1.9	12.9

<sup>f</sup>Revised. <sup>\*</sup>Preliminary. <sup>1</sup>Includes semiconductors. Seasonally adjusted. Source: U.S. Department of Commerce Census Bureau, January 2005.

## December Good for Manufacturing

Tempe, AZ – Manufacturing growth accelerated in December, driven by a significant increase in new orders. Production ticked down – its third straight month of decline – but backlogs firmed, said the Institute for Supply Management ([ism.ws](http://ism.ws)).

Manufacturing grew for the 19th consecutive month, ISM said, based on its monthly poll of the supply chain. "This completes a strong year for manufacturing based on the ISM data, as the overall index averaged above 60% for 2004," ISM chairman Norbert Ore said. "While there is continuing upward pressure on prices, the rate of increase is slowing and definitely trending in the right direction."

The PMI measure of economic activity rose to 58.6%. New orders rose 5.9 points and production fell 0.1 point.

Comments from respondents focused on inflation, margins and seasonal issues. For the month, imports and exports rose while employment fell. Electronic Components and Equipment, and Industrial and Commercial Equipment and Computers were among the sectors reporting growth.

	August	Sept.	Oct.	Nov.	Dec.
PMI	59.0	58.5	56.8	57.8	58.6
New orders	61.2	58.1	58.3	61.5	67.4
Production	59.5	61.6	58.9	57.0	56.9
Inventories	51.7	51.0	48.2	50.7	53.4
Customer inventories	45.5	41.4	43.5	43.5	44.0
Backlogs	55.0	55.0	49.0	47.5	54.0

Source: Institute for Supply Management, January 2005

## Industry Market Snapshot

Book-to-bills of various components/equipment.

	August	Sept.	Oct.	Nov.
Semiconductor equipment <sup>1</sup>	1.01	0.94	0.96	1.0
Semiconductors <sup>2</sup>	1.1%	1.0%	1.5%	1.3%
Rigid PCBs <sup>3</sup> (North America)	1.05	1.01	0.94	0.88
Flexible PCBs <sup>3</sup> (North America)	0.98	1.38	1.48	1.28

Sources: <sup>1</sup>SEMI, <sup>2</sup>SIA (3-month moving average growth), <sup>3</sup>IPC

## China Getting Connected

Beijing – Connector manufacturers in China will produce \$3 billion worth of connectors this year, about 60 million parts. In a report, Global Sources ([globalsources.com](http://globalsources.com)) said \$2.1 billion worth of connectors – 50 million pieces – were produced in 2004.

There are 600 connector manufacturers in the country, the report said. China makes up one-third of connector production worldwide.

## PC User Ranks to Double by 2010

San Jose – The number of PCs in use worldwide will reach almost 1.3 billion by the end of the decade, up from about 575 million today. With markets in Europe, the U.S. and Asia reaching maturity, the bulk of growth will come from emerging regions like China, Russia and India, says Forrester Research ([forrester.com](http://forrester.com)). Emerging markets will account for 566 million new PCs in use by the end of 2010. The mature regions' consumption: 150 million new PCs in use. (The study reflects new PCs in use, not sales of PCs overall – which would be a much higher number.)

PC makers like Lenovo Group in China, which just purchased IBM's PC division, and Aquarius in Russia will gain share because they are positioned to tailor the PC form factor, price points and applications to local markets.

## Consumer Products Converging

Framingham, MA – Digitization of media, expansion of broadband options, proliferation of new converged devices, and collision and consolidation of market leaders will define the top consumer trends in 2005, says IDC ([idc.com](http://idc.com)). Big winners will include handheld game consoles and other portable gaming devices.

The firm also forecasts continued adoption of broadband and VoIP. HDD-based portable MP3 players will also see strong growth. Portable media players, however, will disappoint. Digital camera shipments will exceed 80 million units, pushing conventional film cameras out.

IP video is a hot topic, but rollouts will be minimal in 2005. IP video efforts and offerings are expected to remain largely on the fringes in many regions, says IDC.

## EDA Revenues Drop 2% in Q3

San Jose – Third quarter EDA revenues fell 2% from last year to \$953 million, according to the latest statistics from the Electronic Design Automation Consortium ([edac.org](http://edac.org)).

License and maintenance revenue, the largest revenue category, declined 3%. North America led the way down, with all major categories off vs. last year.

"Despite a weak third quarter, the EDA market has shown a 3% growth rate on a year-to-date basis," said Wally Rhines, EDAC chairman.

The largest tool category, computer-aided engineering, was flat with sales of \$453 million. IC physical design and verification revenue was down 9% to \$272 million.

Revenue for PCB and MCM layout tools totaled \$81 million in Q3, down 1%. Services revenue was \$66 million, up 5%.

Semiconductor intellectual property revenue rose 8%, to \$81 million.

North American revenues fell 9% to \$472 million. Europe's revenues rose 4% to \$192 million, as did Japan's (\$183 million). Double-digit growth continued in the rest of the world, which showed total revenues of \$107 million, up 11%.

Employment rose 4%, to 20,500 professionals, the third straight quarter of new highs in employment.

## In-Stat: 'IC' a Fall

Scottsdale, AZ – Semiconductors will slump in 2005 with revenue declining 5.7% to \$199.3 billion, according to In-Stat ([in-stat.com](http://in-stat.com)).

However, the relatively strong global economy will temper the dip. Last year's sales were \$211.4 billion, a record.

Growth is expected to resume in 2006, In-Stat said.

## Gartner Sees 15% Dip for IC Gear Spending in '05

Stamford, CT – Worldwide semiconductor capital equipment spending grew about 61% in 2004, but this year's spending is projected to drop 15%, according to Gartner Inc.

"The emergence of excess inventories, macroeconomic uncertainty and slowing end-user demand casts a shadow over the outlook for 2005," said Klaus Rinnen, vice president for Gartner's semiconductor manufacturing and design research group, in December. "Device production has slowed in recent months, and with it semiconductor manufacturers have readjusted their capacity ramp-up and equipment purchase plans."

All major segments of the capital equipment market are forecast to decline in 2005 except for the automated test equipment market, which is expected to grow 3%, followed by a 30% drop in 2006. Gartner analysts said the industry is in a downcycle, but this period will be shorter than the prior one in 2001.

"Given more modest-capacity investments during the cycle, the supply-demand imbalance will be far less severe than in the prior two cycles," Rinnen said. "Consequently, the approaching downcycle will be mild, allowing for a return to positive annual investment growth possibly as early as 2006."

Worldwide semiconductor wafer fab utilization rates peaked in the second quarter at 94.9% before dropping to 91.3% at the end of the third quarter, as semiconductor manufacturers trimmed production levels in response to excess inventories.

"By the middle of 2004, capacity caught up with demand, and excess capacity started to emerge," Rinnen said. "However, any excess capacity during this down period will be considerably less than in prior downward cycles, and utilization rates will decline only to about 85% before starting a gradual increase through 2006."

The packaging and assembly equipment market will fall 22% in 2005, to about \$3.5 billion. Growth will be limited to packaging lithography and flip-chip bonder tooling. Packaging utilization rates will likely bottom out in the second half of 2005, giving way to a pickup in orders by the end of the year or very early in 2006.

Gartner analysts said the automated test equipment market will experience a slight increase due to the continued growth of test outsourcing, and the remaining strength of semiconductor assembly and test services providers.

## Report: Electronics, IC Manufacturing in China Still on Sharp Growth Path

San Jose – Manufacturing will surge in China in the next three years, provided the nation isn't overcome by social and political issues, says a new report. Semiconductors, product assembly and design services will all share in the gains, says iSuppli ([isuppli.com](http://isuppli.com)).

China's share of the global semiconductor market will grow 50% by 2008, rising to 22% from its current 14%, the firm says. Sales of manufactured products will also grow 50%, to \$301 billion in 2008, various news reports quoted Byron Wu, China chief manager and senior analyst.

EMS revenues will more than double, going from \$18 billion last year to \$45 billion in 2008, good for a 28% global share, the report said. ODM revenues, another burgeoning segment, will grow to \$108 billion, from \$40 billion last year. By 2008 China will have 75% of the global ODM market, iSuppli said.

## Cellular Modem Market Gaining Speed

Scottsdale, AZ – The cellular modem market had a breakout year in 2004, and prospects for the next five years are even brighter, according to In-Stat ([in-stat.com](http://in-stat.com)).

The market grew 167% last year, based on data from the first three quarters of 2004 and estimates of the final quarter of the year. By 2009, more than 14 million wireless modems will be shipped worldwide, up from slightly more than 2.5 million in 2004, the research firm said.

In-Stat credits high-speed wireless 3G networks, particularly UMTS networks in western Europe, and growing corporate demand for wireless data services in North America and Europe. Says analyst Ken Hyers, "As the rollout of high-speed wireless networks continues in both highly developed markets and in developing markets, the opportunities for cellular modem manufacturers to expand their sales will continue."