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High-tech Sector

Blade Server Shipments Rise in First Quarter

Shipments of blade servers in the first quarter of this year rose 208% year-on-year to \(\frac{4}{2}\)43.5 billion, according to IDC Japan. Blade servers accounted for 2% of the total market. Shipments are expected to reach \(\frac{4}{3}\)43.6 billion in 2007, representing 20% of total shipments.

Bankruptcies Decline in the Electrical Sector Bankruptcies in the electrical sector declined 29% to 39% in August. Debt left behind companies going belly up totaled \(\frac{4}{3},000\) million, down 44% from the same month a year earlier. It is the first time since December 2000 that the number of bankruptcies has fallen to the 30% level. A better safety net provided by the Credit Guarantee Association seems to be helping electric and electronic firms to tide over difficult times.

Toshiba Develops a System to Speed-up the Semiconductor Development Process Toshiba has developed a system that will cut down the number of prototypes that need to be produced during the development of a new semiconductor. Using semiconductor simulation techniques, the company claims that only one prototype will need to be produced, unlike 3-6 in the conventional system. The company plans to start using the system from 2005 for semiconductors going into consumer electronics, where product lifecycles are short.

Mitsubishi Electric to Develop FED TV Monitors

Mitsubishi Electric has decided to develop the next-generation TV monitor, that is, the field emission display monitor for televisions. If plans proceed on schedule, the new monitor will appear on the market in 2007.

Hitachi Develops Technology to Boost HDD Recording Capacity

Hitachi, in cooperation with Tohoku University, has developed a recording system that increases the recording capacity of conventional hard disk drives by 100 times. The new system achieves high recording densities by recording with current to microscopic magnetic memories. The company hopes to commercialize the new HDD in 2010.



Japanese Suppliers Develop Re-writable LSI

Japanese manufacturers are preparing to introduce LSI that can be re-written easily from software. It will make it easier to develop hybrid chips used in cameras, AV devices and game machines. Since conventional LSI cannot be re-written, new chips had to be developed for individual specifications and applications. Fujitsu is expected to launch this type of product by the end of the year.

Japanese Manufacturers Dominate China's Digital Video Market Japanese manufacturers captured four of the five top spots in China's digital video market. Sony was the market leader, followed by Matsushita and JVC. Sansei took the fourth spot and Canon was the fifth largest supplier.

Synthetic Rubber Manufacturers Hike Production Japan's two leading synthetic rubber manufacturers, JSR and Nihon Zeon, are hiking production to meet growing demand from LCD manufacturers and rising exports to Europe. JSR is expected to report record profit in the current fiscal year to March 2004. Shipments of materials for use in LCDs are running higher than expected. The Company now expects an operating income of \$29,000 million on sales of \$266,000 million for the current term. Sales and profit are being driven at Nihon Zeon by rising sales of functional materials and strong demand for high-function resins for lenses used in mobile phones and optical films.

Chemical Firms Stepping Up Investment in IT-related Materials

Chemical companies are stepping up production in IT-related materials, including materials for LCD panels, digital cameras and secondary batteries, to meet growing demand for use in mobile phones, digital cameras, DVDs and other digital consumer electronic devices. Among the chemical producers adding capacity are Hitachi Kasei, Nihon Zeon, Nihon Kayaku, and JSR.

Vacuum Pump Demand to Pick Up Gradually After 2003 Demand for vacuum pumps in Japan in 2002 and 2003 totaled about \(\) \(\) \(\) \(\) \(\) down from the \(\) \(\) \(\) \(\) 80,000-million level in 2000. The decline was due mainly to lower capital investment by semiconductor manufacturers. However, the situation is expected to improve from 2003 onward as semiconductor manufacturers start installing 300-mm wafer lines and shift production to the fifth-generation LCD panels. The new lines will require vacuum pumps with higher capacity.

Semiconductor Washing Machine Demand to Surge



After plunging nearly 30% in fiscal 2002 to \(\frac{110,000}{110,000}\) million, demand for washing machines used in semiconductor lines is expected to increase 10%-29% in fiscal 2003. Increasing production of AV equipment, installation of 300-mm wafer lines as well as growing exports to South East Asia will be boosting demand.

China's PCB Market Set for Explosive Growth China' printed circuit board market is expected to continue to show strong growth in the coming years. The production volume in 2001 topped Taiwan reaching \$35,000 million Yuan in 2001. About 1,000 small and medium-size firms, many of which are joint ventures with Japanese, U. S. and Taiwanese firms, dominate the sector.

Electric Measuring Instruments
Production Up

Production of electric measuring equipment in the first six months of the year rose 11.4% compared to the same period a year ago to \(\frac{1}{2}52,900\) million. Production had been falling after peaking in 2000. Production of semiconductor measuring devices was up 125%. In this category, the output of mixed signal IC testers was up 131% and that of memory IC testers rose 220%. On the other hand, circuits and material testing devices were down 18% and optical measuring devices fell 32.5%. Production of industrial measuring devices was down 9.6% and the output of radiation measuring devices fell 28.4%.

Production of Crystal Devices Slows in July

Production of crystal devices in July fell 1.3% year-on-year in volume and 6.3% in value, according to QIAJ, the sector's trade body. The value of production of all types of crystal devices was down in July. However, the volume of production of crystal oscillators used for industrial applications was up 19.8% and those going into mobile phones rose 10.4%. Nevertheless, production value was lower due to declining prices. Production value of crystal devices for automotive use rose 2.4% but production volume was down 6.4%. Production volume and value of crystal oscillators for color videos were down by double-digit figures.

Taiwanese Manufacturers Shift Focus to 6th Generation LCD Panels

Taiwanese LCD panel manufacturers are shifting attention to the next generation large-size panels. AUO has decided to focus on the 1500X1850mm size panel. The Japanese manufacturer, Sharp, is somewhat in the lead and is planning to commence production of the larger size panel in January 2004.

VC Funds Showing Interest in Bio Ventures Several bio ventures are increasing their equity interest in preparation for going public Much of the funds are being provided by venture capital funds.

Low-priced Computer Software

Several Japanese software producers have followed Source Next, launching low-priced personal computer software. Priced at less than \(\frac{1}{2}\)2,000, they hope the new software will create an entirely new market sector. Among the suppliers are Source Next, TDK Marketing, NEC Inter Channel, and Trend Macro. Industry insiders, however, are concerned that the current competition on price will lead to a major shakeout in this sector.



Bar Code Reader Demand to Grow

Contrary to many sectors which suffered setbacks in 2002, shipments of bar code readers and related devices in 2002 rose 1.2% year-on-year to \$174 billion. The growth rate is likely to accelerate in 2003, with the market expected to expand 10.8% to \$192.8 billion. The growth will be led by new market sectors such as RFID and biometrics sensors. Demand for RFID sensors is expected to increase 27% and that for biometric sensors by approximately 13%.

Used PC Demand Growing

Major vendors, including IBM Japan and Dell, are planning to increase purchases of used personal computers for resale on the market. IBM Japan plans to double the supply of used PCs from the current 20,000 units per year. Dell is also planning to increase the supply of used PCs. Demand for used personal computers is expected to top 800,000 units, up from less than 600,000 units in 2000.

Video Software Shipments Increase in First Half

Shipments of video software in the first half of 2003 rose 13.1% year-on-year to a record \$159,500 million. Rising sales of DVD software offset slower demand caused by a lack of hit titles during the period. DVD software accounted for more than 70% of all video software shipments. Individuals account for 87.8% of all shipments and those for rental chains rose above 10% for the first time.

Environmental System Orders Up in July

Orders for environmental protection systems in July rose 11.6% year-on-year to \$56,200 million. Orders for air pollution control systems rose 2.62 times to \$10,564 million and those for garbage incinerator systems were up 62%. On the other hand, orders for water treatment systems were down 57%. By customer sector, orders from the non-manufacturing sector were up 2.47 times to \$5,846 million. Orders from the manufacturing sector were up 37.4% and exports rose 40% to \$692 million.

Is the Rebound in Machine Tools Sustainable?

Machine tool orders in August rose 22% to $\pm 67,000$ million. This was the 11^{th} straight YoY gain in monthly machine tool orders. However, orders were off 6.7% from July, when they topped the $\pm 70,000$ -million mark. The highest gain (34.4%) was recorded by MHI, which was followed by Makino Milling Machine (27.7%) and Okuma (26.6%). Orders were down 30.4% at the Toshiba Machine group and 6.0% at Tsugami. A closer analysis of orders shows that the weight of exports in total orders has increased from 26% in 1990 to 40% in 2000 and has been edging up steadily since then. Much of this increase was due to rising orders for the state-of-the art manufacturing equipment from China. This lopsided dependence on China could be a cause of volatility.



Industrial Machinery Orders Down in August

Earnings Roundup

Canon Likely to Report Record profit

Cyber Agent to Post Lower Losses

Satellite Broadcasters

Orders for industrial machinery in August were down 5.2% to \(\) \(\) 4290,300 million, according to the Japan Industrial Machinery Manufacturers Association.

Canon in the current term ending December 2003 is likely to report consolidated ordinary income of \(\frac{4}{2}63,000\) million, a 42% year-on-year gain, on consolidated net sales of \(\frac{4}{3}.2\) trillion, up some 9% from the previous fiscal year. This will be the fourth consecutive record profit for Canon. Camera sales are expected to double from the previous year to \(\frac{4}{3}.5\) million units. In business machines, network-enabled color copying machines launched last year are driving sales. At the same time, cost-cutting initiatives are also producing results. In the six months ended June 2003, the cost of sales ratio fell to 49.5%, the first time it has fallen below the 50% level.

Cyber Agent, an Internet advertising agency, is expected to see its consolidated operating income in the current fiscal year to September 2003 decline 30% to some \pm 200 million. Profit is recovering due to rising Internet ad billings and increasing EC sales. Sales are likely to be up 48% to \pm 16,000 million, up 48% from the previous fiscal year. New types of ads launched by the company are increasing at a faster rate than the market as whole, which is also expanding favorably. In the second half of the year, the company is expected to move into the black at the operating income level (\pm 200 million) as the second half will not be affected by the cost of amortization of subsidiary goodwill, which was charged to income lump sum in the first half.

As is clearly evident from the outlook for earnings, the number of subscribers clearly holds the key to the fortunes of satellite broadcasting firms. While Sky Perfect Communications is expected to move solidly into the black in the interim period ending September 2003, WoWow is likely to fall into the red. As of the end of August individual subscribers to Sky Perfect TV totaled 306 million, up 7% from a year ago. On the contrary, the number of subscribers at WoWow fell 3% to 2.86 million.



Basic Electronics Industry Statistics

	Prod	Ship.	Inv.	Capacity utilization	H. Elec. machinery	Cons. appliances	Electronics Sector	Cons.	Industrial electronics	El. devices	Semicon (Production)	Consumer electronics (sales)
Jan.	90.9	95.2	83.9	72.0	1,953	1,255	14,010	1,302	5,837	6,871	3,140	336
Feb.	88.8	92.8	81.6	85.2	2,091	1,439	15,026	1,420	6,573	7,033	3,192	234
Mar.	88.6	88.7	84.4	107.7	3,155	1,691	19,029	1,748	9,561	7,720	3,456	266
Apr.	86.6	92.6	82.7	96.2	1,788	1,677	14,103	1,783	5,261	7,059	3,171	216
May	92.0	96.2	81.1	97.0	1,857	1,707	14,721	1.952	5,501	7,269	3,307	205
June	92.6	96.2	81.1	115.9	2,003	2,039	16,003	1,954	6,481	7,569	3,449	229
July	91.3	90.4	92.6									247
YoY	4.0	0.3	-6.6	2.7	6.9	-1.8	4.5	15.7	4.4	0.1	3.2	-32.7

Base year 2000 = 100 (seasonally adjusted); 100 million yen, YoY: Year-on-year percentage change

 $Source: \textit{Ministry of Economy, Trade and Industry, Japan Electronics Industry Association and other trade associations$

