



**Vol . 111**

## *High-tech Sector*

**Week ended Apr. 4, 2004**

### *Japan, China and S. Korea to Jointly Develop 4G Technology*

The governments of Japan, China and S. Korea have agreed to jointly develop the technology of the 4G mobile phone, likely to be launched around 2010. Together, the three countries account for 30% of all mobile phone users in the world. If successful, it could become a world standard.

### *Kansai Electric Power (9503 TSE) to Withdraw from PHS Service*

Kansai Electric Power said that it will discontinue its ASTEL service, a PHS service. The company will stop accepting new subscriptions from the end of April and the service will be terminated at the end of the year. Its 140,000 subscribers will be transferred to another carrier. Japan's ten major electric power companies plan to enter the telecommunications business using their optical fiber network that they are building, using their existing electric power poles.

### *PCB Production to Show Strong Growth in 2004*

Production of printed circuit boards in 2004 is expected to increase 9.2% in 2004 to ¥1.1 trillion, according to the Japan Printed Circuit Board Association. The association's forecast sees production rising at an annual average rate of 5% through 2008. Production will be driven by flexible PCBs, multi-layer built-up PCBs and flex-rigid PCBs, that is high-performance and high-density printed circuit boards for digital consumer devices.

### *FPD in Short Supply*

Reflecting rising sales of flat panel televisions, the PDP panel is in short supply. FPD components and panel modules are also in short supply. Despite growing demand, mergers and acquisitions are becoming rife as manufacturers in Japan, S. Korea and Taiwan try to quickly boost production in an attempt to expand their global market shares.



***Nippon Electric Glass (5202 TSE)  
Boosting Production***

Nippon Electric Glass will, by the end of May, increase production of glass for plasma television panels four-fold to 800,000 panels per month (42" glass panel equivalent). The move is in response to rising demand for plasma television sets. Other glass manufacturers, including Asahi Glass, are also expected to follow suit.

***NEC (6701 TSE) Develops a Quick Recharge Battery***

NEC has developed a battery that can be recharged in just 30 seconds and has power storage capacity equivalent to the Nickel-Cadmium-type currently in use for digital cameras and portable MDs and other mobile devices. The new battery is of the organic radical type in which power is stored in a special resin. The company does not expect applications to be limited to mobile devices but to extend to hybrid cars and computers.

***Electronic Component Manufacturers Stepping Up M&As***

Japan's electronic component manufacturers are looking to mergers and acquisitions as a quick way to strengthen their core businesses and build globally competitive business structures. So far mergers and acquisitions in this sector have been limited to acquisitions of subsidiaries and for rescuing failing companies. Japanese firms following this strategy include Murata Manufacturing, Kyocera, Nihon Densan, Nichicon, Omron, and Hitachi Metals.

***Flash Memory Market – Supplier Ranking***

The global flash memory market (including MCP) in 2003 expanded by 47% to ¥1.3 trillion in value and 38% in volume, according to I-Supply Japan, a high-tech market research firm. Demand for the NAND type flash memory was up 35% and that for the NOR type rose 65%. Samsung was the largest supplier, accounting for 19.4% (up from 15.4% in 2002) of the market. Production of flash memories at Samsung was up 86% in 2003. Second ranked Toshiba had a market share of 16.4% (up from 10.7% in 2002). Toshiba reported a production gain of 125%. Both Samsung and Toshiba specialize in NAND memories. Global production of flash memories in 2004 is expected to increase 39%.

***China's It Market on Solid Growth Path***

China's IT market, estimated at ¥4.3 trillion for 2003, is expected to increase 18.9% in 2004 to ¥5.1 trillion. The market is expected to continue to grow, although at a somewhat slower pace, nearing the ten trillion yen mark in 2008. Growth will be driven by mobile phones and personal computers. Core components for mobile phones are already in short supply and Japanese electronic component manufacturers are increasing capital investment to add capacity. In addition to mobile phones and computers, demand for digital consumer electronic items is also growing.



**Earnings Roundup****Keyence(6861 TSE) Set to Report Strong Profit**

Keyence's consolidated operating income in the fiscal year ended March 2004 is likely to have risen 40% to ¥59,500 million on a sales gain of 25% to ¥117,000 million. This will push up its operating margin to more than 50%. The company uses what is known as a fabless system in which production is outsourced. The operating income margin is expected to top 50% at only two listed firms, Keyence and Yahoo.

**Operating Income to Double at Advantest**

Advantest is likely to see its consolidated operating income double in the current fiscal year ending March 2005 to approximately ¥60,000 million. In addition to rising sales, expected to be up 47% to ¥170,000 million, the company is starting to benefit from sharply lower fixed costs resulting from aggressive streamlining that included payroll cutbacks and measures to raise

**Initial Public Offerings News (For detailed information, go to: <http://www.ipotokyo.com>)**

No new issues were approved for listing in the week ended April 4.

**Basic Electronics Industry Statistics**

	Prod	Ship.	Inv.	Capacity utilization	H. Elec. machinery	Cons. appliances	Electronics Sector	Cons. electronics	Industrial electronics	Semicon (Production)	Electronic devices	Consumer electronics (sales)
Feb.	88.8	92.8	81.6	85.2	2,091	1,439	15,026	1,420	6,573	3,192	7,033	234
Mar.	88.6	88.7	84.4	107.7	3,155	1,691	19,029	1,748	9,561	3,456	7,720	266
Apr.	86.6	92.6	82.7	96.2	1,788	1,677	14,103	1,783	5,261	3,171	7,059	216
May	92.0	96.2	81.1	97.0	1,857	1,707	14,721	1,952	5,501	3,307	7,269	205
June	92.6	96.2	81.1	115.9	2,003	2,039	16,003	1,954	6,481	3,449	7,569	229
July	91.3	90.4	92.6	106.4	2,023	1,924	15,859	1,823	6,206	3,545	7,830	247
Aug.	91.2	95.8	87.0	60.5	1,771	1,165	14,332	1,577	5,593	3,388	7,362	230
Sept	94.1	96.4	82.7	74.3	2,495	1,313	18,078	2,314	7,335	3,761	8,430	209
Oct.	98.6	104.9	80.8	75.2	2,005	1,397	16,942	2,473	6,100	3,698	8,370	228
Nov.	99.4	99.8	81.8	74.1	1,913	1,465	16,360	2,310	5,897	3,611	8,153	244
Dec.	100.2	102.4	81.3	80.9	2,123	1,529	17,484	2,289	7,034	3,596	8,160	321
Jan.	102.5	105.4	81.5	76.1			15,531	1,517	6,073	7,941	3,629	273
YoY	12.8	10.7	-2.9	5.7	-2.4	4.6	10.4	15.8	3.0	15.6	15.6	-18.8

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

*Source: Ministry of Economy, Trade and Industry, Japan Electronics Industry Association and other trade associations*

