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High-tech Sector

Govt. Considering Introduction of TD-CDMA

The government will soon ask its consultative committee on communications to come up with a recommendation on the possible adoption of the TD-CDMA system. If the new system is approved it will open up a way for other new common carriers to enter the telecommunications business. In Japan, NTT DoCoMo and Vodafone use the W-CDMA system and KDDI, the CDMA2000 1X system. Since bandwidths in these systems have already been allotted to these carriers, new carriers find it difficult to enter this market. The wave band for this system is not used at present since the development of 3G technologies using this system was considered to be difficult.

Intel and DoCoMo (9437 TSE1) to Jointly Develop Semiconductors NTT DoCoMo announced that it will jointly develop high-performance semiconductors for mobile phones with Intel. The two companies will cooperate in the development of LSI for FOMA, DoCoMo's 3G phones and technologies to achieve transmission speeds on a par with optical fibers. They hope that the new semiconductors will help bring down the cost of terminal equipment and also help make its semiconductors a global standard.

Mobile Phone Subscribers Increase Marginally in October The number of mobile phone subscribers in October increased 0.4% from the previous month to 78.94 million. In terms of net subscriber growth au came in at the top, recording a 180,000 increase. au also outpaced NTT DoCoMo in 3G phones. The company has 10,661,000 3G subscribers, up 458,000 in October, against 1,337,000 for NTT DoCoMo, an increase of 334,000.

Sept. Mobile Phone Shipments Up Sharply

Shipments of mobile phones in Japan rose 20.6% year-on-year to 4.13 million units, according to JEITA, the sector's trade body. This was the eleventh consecutive year-on-year gain in monthly shipments. Shipments in the first half of the current fiscal year to September 2003 were up 27.9% year-on-year to 26.7 million units.



MEMS Market to be Underpinned by Demand from Broad Range of Sectors The MEMS (Micro Electro Mechanical Systems) market is set for solid growth, underpinned by demand from a wide range of sectors from autos and biotechnology to energy. MEMS is expected to find a growing range of applications in the automotive sector (especially for ITS systems and safety applications). Demand for MEMS systems in the automotive sector is expected to rise to \$1.76 billion in 2010. In the biotechnology sector, demand for MEMS systems in 2010 is estimated at \$3.0 billion. The demand for MEMS for display systems is estimated also at around \$3.0 billion in 2010. Demand from the energy sector is likely to be around \$1.3 billion. Having said that, we must not overlook the fact that it will be a few years before the market enters the growth phase, still 2-3 years away.

LCD/PDP TV Markets Set to Grow

Although shipments of LDP/PDP television sets quadrupled to 1.56 million units in just two years to 2003, they still represent only about 1% of the CRT TV market. However, demand is set to enter a period of explosive growth from 2004-2005 as prices of panels come down to more affordable levels. Prices are expected to decline at an annual rate of about 30%, which will bring them into the affordable price range in 2005-2006. Daiwa Securities Research Institute forecasts see the LCD television representing roughly half of the total TV market.

Electronic Device Production Up in the First Half

Production of electronic devices in the first half ended September 2003 rose 15.3% year-on-year to \$1.4 trillion yen. However, production, excluding mobile phones, was sluggish, reflecting shift of production to Asian countries. Production of terminal equipment was up 27.4% YoY to \$1.1 trillion but that of network equipment slipped 10.1% to \$350 billion.

Global PCB Market Set for Solid Growth in 2004 The global PCB market, propelled by strong demand from the IT sector, is expected to grow at an annual rate of 8% in 2004. The market will grow an estimated 3.4% in 2003 to \$32,105 million. The eight percent growth rate is expected to be sustained in 2005 also. The bullish growth projections are based on several factors: major PCB manufacturers (Cisco Micron) have started hiring and the supply-demand balance of basic materials used in the production of PCBs is getting tighter. Most industry insiders expect demand to head for a full-blown recovery from around next April-May.

Industrial Machinery Orders Up in First Half

Orders for industrial machinery in the first half ended September 2003 rose 29.5% year-on-year to \(\frac{1}{2}\).57 trillion. Orders were also favorable in September, rising 18.2% YoY. Orders for boilers and power sources doubled due mainly to large export orders and orders for chemical and plastics machinery were also strong. Although domestic demand was up only 3.4% export orders rose a healthy 43.1%. With domestic orders slow, overseas orders represented nearly 50% of total orders. Overseas orders in the first half were up 81.2%.



Earnings Roundup

IT Services Sector - Earnings Sluggish

The combined interim results of the 14 major IT service firms were sluggish. Financial results of IT service firms dependent on software development were sluggish as major customer industries cut back on IT investments. On the other hand, IT service firms specializing in outsourcing services, benefited from stable revenue and earnings. CSK reported record high interim earnings as it shifted the core of operations to outsourcing services. Nippon Unisys reported sharply lower earnings as sluggish sales in its software development and hardware offset the gains in outsourcing services.

What are the Keys to Strong Earnings in Electronics?

An analysis by the Nihon Keizai Shimbun of 707 or roughly 40% of the firms closing books in March revealed that those focusing on digital devices or on niche products and on Asian markets reported strong financial results. Digital products have a diversified range and individual product markets are small. Firms focusing on such niche markets did relatively well. One such company is Nitto Denko. Good examples of companies benefiting from Asian markets are Yamaha and Suzuki.

Review of Earnings at Electronic Components Manufacturers

In the electronics components sector, demand in Japan rose for components going into digital products, including cameras, DVDs and LCD televisions, in Taiwan for personal computers and in China for mobile phones. Alps Electric and TDK saw demand for HDDs rise sharply. TDK raised its market share for HDDs from 28% to 33%, pushing up HDD sales by 42.5% year-on-year. Nitto Denko saw sales of its high-performance optical films increase sharply and translating into double-digit sales and earnings gains.

Production of Crystal Devices Rises for the First Time in Six Months Production of crystal devices in September rose 9.6% year-on-year in volume and 4.7% in value, according to QIAJ, the sector's trade body. Although prices are on the skids, value of sales rose over the previous year in all categories, except crystal filters. Production volume of crystal oscillators for industrial applications (such as for mobile phones) was up 50.4%.

Electronic Component Manufacturers Step up Production of Small Antennas Manufacturers of small antennas used in mobile phones, PDAs and other devices are stepping up R&D and launching mass production of smaller antennas to meet demand from rapidly expanding markets. Antennas for mobile phones, PDAs, IEEE802.1 wireless LAN modeuls, Bluetooth modules and ultra wideband modules are in strong demand. Global shipments in fiscal 2002 are estimated at 200 million units. Shipments are expected to reach 500 million units in fiscal 2003 and 1,300 million units in 2005. Some of the major suppliers are SMK, Kyocera, Taiyo Yuden, TDK, Yokowo and TDK.



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	106.4	2,023	1,924	15,859	1,823	6,206	7,830	3,545	247
Aug.	91.2	95.8	87.0	60.5	1,771	1,165	14,332	1,577	5,593	7,362	3,388	230
YoY	3.2	3.7	-0.3	-11.3	-3.2	-10.4	-1.4	6.4	-5.8	0.6	-0.7	-263

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

