

# Fiscal 2000 Performance Matrix

## Electronic Materials

## Electronic Devices

### Products

Multilayer chip capacitors, ferrite cores for inductors and transformers, deflection yoke cores for TVs and computer monitors, ferrite and rare-earth metal magnets

High-frequency components, EMC (noise-reduction) components, inductors, transformers, thermistors, piezoelectric components, actuators, coils, DC-DC converters, DC-AC converters, switching power supplies

### Results

Sales increased 12.6 percent to ¥174,897 million as orders from the PC and mobile phone industries sparked a substantial rise in demand for capacitors. Ferrite core sales were lower due to the strong yen and pressure on prices. The same factors also restrained ferrite magnetic results, although sales volume increased. Metal magnet sales were flat due to competitive pressure on prices.

Sales increased 7.4 percent to ¥129,025 million. Inductive devices were flat, with EMC components and coils performing well and assembled deflection yoke cores declining. Backed by higher orders in Europe, sales of high-frequency components surged. DC-DC converter sales also recorded a big increase as new markets were developed. Sensor and actuator sales climbed as well due to favorable market trends.

### Highlights

- Made large-scale investments to raise monthly output of multi-layer chip capacitors approximately 40 percent
- Developed a ferrite to meet the need for compact, high-output power supplies in notebook PC adapters and similar products
- A new super-permeable ferrite (H5C5) will dramatically reduce the size of transformers in many applications
- Developed chip beads capable of removing noise in the gigahertz range

- Developed a 2.4 gigahertz multi-layer antenna for the Bluetooth wireless networking standard
- Developed a leadless, low-resistance chip inductor for a variety of battery-powered electronic devices
- Developed the industry's smallest multilayer chip balun (HMM-13 series) for mobile phones

## Recording Devices

MR and GMR heads for hard-disk drives, heads for floppy-disk drives, thermal printer heads



Sales decreased 4.2 percent to ¥200,748 million. Higher HDD head areal density caused demand to contract as fewer heads were needed in each HDD. Furthermore, poor operating results at several HDD manufacturers prompted intense demands for discounts on heads. TDK almost completed the transition to GMR technology in March 2000.



- Announced plans to produce samples of next-generation magneto-resistive tunnel-junction (TMR) heads late in 2000
- Acquired MR and GMR head manufacturer Headway Technologies, Inc. in March 2000.

## Semiconductors and Others

PC cards, modems, LAN cards and combination modem/LAN cards, ICs for modems and LAN/WAN applications, factory automation equipment, anechoic testing chambers



Sales decreased 4.3 percent to ¥27,305 million. TDK's semiconductor operations generated higher sales, primarily through the communications IC engineering operations of TDK Semiconductor Corp. Sales of PC cards continued to decline.



- Completed preparations for the full-scale production of organic EL displays
- Developed flash memory control IC that can drive up to eight NAND flash memory chips at once.
- Developed a number of innovative single-chip ICs for set-top boxes, including a switcher for the European SCART connection standard.

## Recording Media

Write-once CD-R discs, MiniDiscs (MD), DVD discs, audiotapes, videotapes, digital-format videotapes, floppy disks and tape-based data storage media for computers



Sales declined 12.5 percent to ¥142,489 million. Optical disk sales climbed as demand for CD-R discs rose dramatically, although sales prices were lower. In the MD sector, a steep fall in sales prices offset volume gains. Audiotape sales fell along with global demand, but TDK again extended its number-one position in this market.



- Raised monthly output of CD-R discs to 21 million as of April 2000.
- Started sales of D-VHS cassettes for the VHS digital format
- Started sales in Japan of DVD-RW discs for DVD video recorders