COMPONENTS & DEVICES

In addition to mainstay deflection yokes, the Components and Devices business has won the confidence of clients for its product lineup comprising "VIL" PWBs, disk drive motors for computer peripherals. External sales of 89% are expected to rise even further, led by growth in these promising fields. The revenue and profit structure is becoming more stable with these three business pillars as a foundation.

Featuring compactness, multiple functionality and compatibility at high frequency, "VIL" PWBs are attracting attention in accordance with digitization and mobilization as seen in the rapid diffusion of mobile phones. Amid projections of growth in mobile phone shipments from 280 million units in 1999 to 640 million units in 2001, production of "VIL" PWBs is forecast to grow 80% from ¥79 billion in 1999 to ¥142 billion in 2000, according to Japan Printed Circuit Association (JPCA) estimates.

Our "VIL" PWBs are widely acknowledged for their highly reliable free inter-layer connections made possible with innovative laser processing technology. Our "VIL" PWBs are employed in the digital mobile phone components of Motorola, Inc., one of the world's three largest mobile phone manufacturers, and shipments have begun to a second company. Manufacturers in Asia are expected to enter full-scale production of mobile phones, and JVC is advancing preparations with an eye on that market.

"VIL" PWBs created a wave of new products as demonstrated by JVC's mini DV camcorder, which have been well received throughout the world. Semiconductor Package Substrates, which directly connect bare integrated circuits (ICs) and "VIL" PWBs, also have the potential to create new products and markets. Semiconductor Package Substrates are forecast to contribute to greater speeds and densities of a wide range of devices, as they handle signals faster than conventional package substrates in products that require high frequencies and digital processing.

Compatible with mobile 1/2-inch height floppy disk drives (FDD), our FDD motor is another component targeted at growing markets. The world market for 1/2-inch height FDD motors is projected to increase 33% from 24.3 million units in 1999 to 32.4



"VIL" PWB (HIGH-DENSITY BUILD-UP MULTILAYER PRINTED WIRING BOARD) High mounting density is realized with the combination of two-layer build-up and laser-processed blind holes for connections.



SEMICONDUCTOR PACKAGE SUBSTRATE

Through original fine "VIL" processing technology, JVC is able to produce high-density substrates applicable to highfrequency digital equipment.

Business Structure Stabilizing on Growth in "VIL" PWBs and Motors for Computer Peripherals

million units in 2001. Our FDD motors are easy to use, reducing power consumption by 80% while preserving high startup rotation torque. Employment in various applications, primarily notebook PCs, which demand energy conservation, expanded our share of the world market to 60% for the component. In other motor operations, we are positioning laser beam printer (LBP) motors as a promising product, which are expected to grow substantially. JVC is making a firm push to convert its HDD motors, for which demand is increasing while profitability is declining, to high-value-added devices.

Our world market share for deflection yokes remained unchanged during the fiscal year under review. In 1999, home electronics manufacturers continued to withdraw from CRT monitor operations at their domestic plants. Although sales fell during the fiscal year under review, we made progress in developing new customers. JVC attained a 60% share of the free market, excluding the market comprising manufacturers that do not engage in external procurement, allowing the Company to maximize the merits of mass production in deflection yokes operations. In the display monitor market, though LCDs are projected to increase in market share by 10% to nearly 30% of the total market by 2003, the CRT monitor market is forecast to expand as much as 7% annually during the same period.

Despite expectations of growth, the downward spiral of prices is not expected to stop. JVC will continue to develop the business, focusing on high-value-added deflection yokes through proactive proposals to customers.

Our market share for deflection yokes is maintained through a system that swiftly responds to frequent design changes by locating manufacturing bases near customers after acquiring their unwavering trust on the prerequisite conditions of the components industry—quality, lead time and cost. Another factor is our highly rated technological development capabilities, which develop proposals a step ahead of the competition for the benefit of our customer's engineering processes. These factors behind the success of our deflection yokes hold true in all component businesses. With plans to locate production centers near customers in the future, JVC will engage in overseas production of "VIL" PWBs to create a business structure resilient to currency fluctuations.



FDD MOTORS

JVC's floppy disk drive motors realize compactness, a low profile and high efficiency through the development of custom ICs for saving power and the employment of new indexing.



DEFLECTION YOKES

With a unique design, JVC's deflection yokes deliver high quality and high performance. Compatible with high-speed scanning, our deflection yokes feature an advanced environmental design and have been highly evaluated for computer display monitors.