

# SanDisk®

STORE YOUR WORLD IN OURS™

## THE MARKET

Riding the wave of what the *San Francisco Chronicle* described as a “growing consumer appetite for digital cameras, MP3 players, and multimedia cellular telephones,” SanDisk® Corporation, the world’s largest producer of flash memory cards, has found itself in the right place at the right time. Only a few years ago, who could have dreamed that millions of people would rely on chips the size of postage stamps and match-books to store everything from digital photos to the Rolling Stones’ music library?

For owners of handheld electronic devices, which includes just about everyone these days, SanDisk cards have become indispensable. Apart from their initial uses for photography and music, flash memory applications are now found in PDAs and handheld computers, portable game and video players, GPS navigation devices, and USB portable flash drives.

Unlike a hard drive, a SanDisk flash device has no moving parts. Instead, it stores data in microscopic cells of razor-thin chips. The memory is known as “non-volatile” because it requires no power to retain information, but data can be quickly erased.

As of 2003, SanDisk commanded 29 percent of the international market for flash memory cards, according to Gartner. In the United States, SanDisk had 44 percent of card market dollar sales during 2004 and also prevailed as the top seller of USB flash drives, with nearly 31 percent of U.S. retail sales, according to the NPD Group, a market research firm.

Right now, digital photography accounts for the lion’s share of SanDisk’s flash memory card business. Digital camera shipments surpassed 63



million units worldwide in 2004, an increase of more than 35 percent over 2003, based on a report from Lyra Research. That number is projected to reach 100 million units by 2008. And most camera owners buy more than one flash memory card.

Beyond digital cameras and flash drives, SanDisk is diversifying into other memory-intensive mass markets, including MP3 music players, which generated sales of 36.8 million units worldwide in 2004. Within the next five years, that number could grow to 132 million units, according to research company iSuppli.

SanDisk also has positioned itself as a driver in the ever-widening mobile phone market as handset makers roll out new models with flash memory card slots. In 2004, says IDC, the number of card-enabled mobile phones accounted for 87 million units in sales, but those numbers are projected to reach 372 million units by 2008.

## ACHIEVEMENTS

What sets SanDisk apart from other companies is not just the singular focus of its mission — to become the leader in flash memory — but its success in combining, all under one roof, technology innovation, manufacturing, sales and marketing, and distribution to retailers. SanDisk products are now sold in over 100,000 retail outlets worldwide, and the company ships more than a million memory cards each week. Its revenues doubled from 2002 to 2003 and nearly doubled again in 2004. No wonder the *San Francisco Chronicle*, in its annual ratings of the top 200 companies in northern California, including many Fortune 500 names in Silicon Valley, elevated SanDisk to the number-one position in its 2004 survey.



Among the major milestones, SanDisk surpassed \$1 billion in revenues for 2003 and reached \$1.8 billion in 2004, with more than half of its sales outside of the United States. In terms of accolades, SanDisk has garnered Editor’s Choice, Product of the Year, and design and engineering awards from major electronics publications and trade associations in the United States and abroad.

## HISTORY

Dr. Eli Harari, an Israeli-born physicist with a passion for memory technology, founded SanDisk, which was originally called SunDisk, in 1988 with two partners. Sanjay Mehrotra, who hailed from Intel, and Jack Yuan, an engineer from Hughes Microelectronics (a division of Hughes Aircraft), joined Harari in this new and admittedly risky business of creating a product for a market that didn’t exist.

They began with 10 employees in a converted stock brokerage office and operated on a shoestring until IBM and a few other companies began submitting orders, with checks attached. It took

four years for the company to attain profitability, but by the milestone year of 1992 SunDisk was able to generate \$22 million in revenue.

Three years later, the company changed its name to SanDisk and introduced the first flash memory card called CompactFlash®, the smallest removable storage module at the time. Dr. Harari and his team had developed a unique process called Multi-Level Cell or “double density,” which allows two bits of data to be recorded on each transistor and thereby doubles the amount of data that can be stored in each cell.

In November 1995, SanDisk went public with an IPO (SNDK on the NASDAQ index), and the stock price shot up more than twofold in the initial frenzy of trading, giving the company a firm financial footing. Today SanDisk holds over 350 U.S. and international patents and collects royalties on license agreements with other companies. In 2004, it received \$174 million in license and royalty revenues, which was up 79 percent from the previous year.

As SanDisk grew in the late 1990s, it opened operations and sales offices in Israel, Hong Kong, Japan, Germany, and the Netherlands. Today, SanDisk, with its headquarters in Sunnyvale, California, has nearly 900 employees.

### THE PRODUCT

Soon after the company was founded, it offered a PC card that looked like a circuit board and contained all of 10 megabytes of memory, or roughly the capacity of seven floppy disks. It was as large as a person's hand and sold for \$140 per megabyte. Today, a 512 MB TransFlash™ module that is the size of a fingernail and is the world's smallest removable flash memory form factor goes for about 10 cents a megabyte. What a difference 15 years can make.

SanDisk now has the largest and most diverse line of flash memory card products in the industry, including the three most popular cards: SD™, CompactFlash, and Memory Stick PRO™. With the emergence of full-featured mobile phones, SanDisk also fields a powerful ensemble of petite cards: miniSD™ and RS-MMC™, Memory Stick PRO Duo, and the diminutive TransFlash. In early 2005, SanDisk introduced neon-colored Memory Stick PRO Duo and SD gaming cards to use with the new Sony PlayStation Portable and Gizmondo handheld electronic game and multimedia devices.

SanDisk's line of USB flash drives includes the Cruzer® Mini, Cruzer Micro, Cruzer Titanium, and the new Cruzer Profile, which has a biometric fingerprint scanner for security. The company also manufactures an array of card readers, including



the 12-in-1 Multi-card Reader, the new MobileMate™ SD/MultiMediaCard™ and Memory Stick™ readers, and the SanDisk Photo Album, which allows consumers to show their digital pictures on a standard television set and also doubles as a PC card reader. Finally, a growing line of MP3 players includes the popular Digital Audio Player, which can hold up to 32 hours of compressed music, and the recently introduced Sansa™, which has both embedded memory and an SD card slot that can double or triple the player's capacity.

Although nearly 85 percent of SanDisk's revenue is derived from consumer electronics, the company still offers commercial OEM products in all popular card formats as well as USB flash drives. One major initiative consists of working with medical records companies and physicians' groups to create a national electronic records system that would allow patients to carry vital health files on a USB flash memory device. Some of these devices already have been introduced by SanDisk and its partner companies.

### RECENT DEVELOPMENTS

In late 2004, the company introduced the SanDisk Extreme™ III flash memory card which, with a minimal sequential write and read speed of 20MB per second, became the world's fastest flash card. Over the years, SanDisk has forged strong relationships with companies such as Toshiba, Sony, and Sharp. SanDisk co-developed, with Sony, the next-generation Memory Stick, called Memory Stick PRO/PRO Duo. And with Toshiba, it launched Flash Partners, Ltd., a joint venture to build flash memory at Yokkaichi, Japan, near Nagoya. In February 2005, Toshiba and SanDisk dedicated the opening of Fab 3, a large facility that will produce NAND flash on 300mm wafers to meet the demand for higher capacities.

In the role of standard-bearer, SanDisk in early 2005 joined with M-Systems Flash Pioneers Limited to launch U3™, a separate alliance whose mission is to establish an open platform for software applications on USB flash drives. Someday soon, every software program that anyone could want will fit on a tiny device that is smaller than a pack of chewing gum. Think of it as a laptop in your pocket.

### PROMOTION

During the 2004 Summer Olympics in Greece, SanDisk launched its first television commercial to promote the brand, putting it in a league with a handful of elite electronics companies. The spots, part of a coordinated worldwide print and electronics campaign, emphasized the human values of saving treasured memories on digital flash media and were underscored by the company's new slogan: “Store Your World in Ours™.”

SanDisk also has followed an aggressive print advertising campaign, ranging from photographic and consumer electronics publications to mass-circulation magazines such as *Newsweek* and



*Rolling Stone*. And in conjunction with its international branding programs, SanDisk has worked closely with retailers, creating point-of-sale promotions and displays in over 15,000 storefronts, including major chains such as Best Buy, Circuit City, Costco, and Staples.

### BRAND VALUES

Innovation, performance, and reliability at an affordable price are among the themes that resonate with consumers when they see the SanDisk brand. While the company has established its reputation on the foundation of digital photography, its goal is to be the storage leader for everything from spreadsheets to video games. Now, more people rely on SanDisk to preserve their memories than any other brand of flash memory. If you can walk with it, talk with it, or play with it, you'll find a SanDisk card to meet your needs. As the saying goes, “Store Your World in Ours.”

### THINGS YOU DIDN'T KNOW ABOUT SANDISK

- SanDisk invented the flash memory card.
- SanDisk is the only company that manufactures or has licenses to manufacture all of the major flash memory card formats.
- SanDisk cards and their contents have survived floods, fires, explosions, and even the horrific tsunami-generated tidal waves that struck Asia in early 2005.