



Computer Hardware & Software

SanDisk Hopes To Hammer Memory Prices

Chris Kraeuter, 10.27.05, 6:00 AM ET

http://www.forbes.com/home/technology/2005/10/26/sandisk-matrix-cheap-chips-cx_ck_1027matrix.html

Lost in all the hoopla surrounding the latest crush of earnings reports was the significance of SanDisk's acquisition of privately held Matrix Semiconductor for \$250 million.

Matrix makes cheap memory cards that can only be written to once. The cards could be used by a company to cheaply store, distribute and sell videogames or music; or an individual could use them as permanent archives for digital photos.

Matrix' advantage comes from the way it stores data, says analyst Jim Handy with Semico Research, which should help lower the costs of SanDisk's (nasdaq: SNDK - news - people) cards further, helping it spur demand and expand market share.

SanDisk makes flash memory, which retains its memory even when there is no power, specializing in a type of flash known as NAND, an inexpensive and quick-writing storage format popular in digital cameras and MP3 players. SanDisk focuses on incorporating NAND flash into forms that can be removed from one device and inserted into another.

Handy says that Matrix' technology produces storage devices that are a third of the cost of present NAND memory. "I've always viewed Matrix as a potential threat to NAND," he says.

Memory cards are on a declining price curve, but ideal densities for today's digital cameras still occupy price points from \$60 to \$200. The cards hold large amounts of data and can be used again and again, but require the technical know-how to transfer the images and the digital capacity to store the images on an alternate device, like a computer.

In a statement announcing the purchase, SanDisk stated that Matrix technology, since it can only be written to once, "complements rather than competes with flash memory."

So far, Matrix' products have been featured in a Mattel (nyse: MAT - news - people) music and video player targeted at preteens and are believed to be in a Disney-branded MP3 player targeted to the grade-school set, according to Handy. Both devices come with prerecorded content.

He says while those two deals don't really represent mass adoption, they do show that Matrix has a technology that can be manufactured in high volumes. Matrix investors included Nintendo (other-otc: NTDOY - news - people), Microsoft (nasdaq: MSFT - news - people), Eastman Kodak (nyse: EK - news - people), Seagate Technologies (nyse: STX - news - people) and Sony (nyse: SNE - news - people) among others.

SanDisk expects the acquisition to knock as much as 10 cents a share off its operating earnings next year while adding \$60 million to \$90 million in sales. The deal calls for SanDisk to pay \$238 million in stock and \$12 million in cash for the privately held company. SanDisk can afford to part with some of its stock, which has more than doubled this year to almost \$57.

Chief Executive Officer Eli Harari said during a conference call last week that the near-term dilution should "be well worth the long-term potential opportunities [of Matrix' technology] as an effective content distribution media in mobile applications in future years." The company will provide more details about the purchase early next year.

If prices for its cards are reduced further, SanDisk should be able to broaden the base of potential customers, something the company has been trying to do with its Shoot & Store cards, which generally cost between \$5 and \$20 and can be found in retail stores. Matrix' technology will also contribute to SanDisk's Gruvi line of preloaded, copyright-protected cards that feature music or video.

At cheap enough price points, memory cards begin to take on the familiar characteristics of film, a comforting factor to the newly digital or those without the computing horsepower and storage of the techno savvy. The cards are just as easily kept with content on them and, at a certain price, it becomes cost effective simply to buy another card.