

SanDisk to Acquire SMART Storage



OBJECTIVE ANALYSIS SEMICONDUCTOR MARKET RESEARCH



Further Expands Enterprise SSD Presence

SanDisk Corporation announced on 2 July 2013 a definitive agreement to acquire SMART Storage Systems, a manufacturer of enterprise SATA and SAS SSDs. SanDisk will pay approximately \$307 million in cash and equity. The acquisition has been approved by the boards of directors of both companies.

The transaction is subject to customary closing conditions, including regulatory review and approval, and it is expected to close in August, 2013. Approximately 250 SMART Storage Systems employees will join SanDisk at the close of the transaction.

Who is SMART?

SMART Storage Systems is the SSD arm of the company originally known as SMART Modular Technologies. SMART Storage manufactures SSDs that are largely sold to OEMs for re-branding. For this reason it is a significant force within the enterprise SSD market although it does not have a widely-recognized name. SMART's SSD customers include most leading OEMs.

The company was a very minor player in SSDs until its acquisition of Adtron in 2008 which provided it with high-IOPS SSDs and military expertise. Seeing an opportunity, SMART's management focused significant efforts on growing the enterprise business and developed strong SSD technical know-how that allows the company to ship MLC-based SSDs with endurance specifications superior to those of some SLC SSDs.

SMART Storage Systems had shipments of about \$25M in its most recent quarter and is quickly growing in the enterprise storage market. It is currently a part of SMART Worldwide Holdings, which was taken private in 2011 by the original founder Iain MacKenzie, and the investment firm Silver Lake. SMART actually has been publicly owned twice during the course of its life, and was acquired by Solectron between these two phases.

SanDisk's Enterprise Strategy Unfolds

The SMART acquisition will be the fourth such transaction in SanDisk's efforts to become a leader in the enterprise SSD Market. Until 2011 SanDisk's sole SSD focus was on client storage, a sector that many expected to dominate SSD sales, but which was later found to be following Objective Analysis' longstanding forecast for very limited growth. Although the potential of SSDs in PCs appears very large, the cost/benefit of adding an SSD to a PC has limited penetration to only a few percent of new PCs.

Prior to this acquisition SanDisk acquired Pliant Technology, a maker of SAS SSDs, FlashSoft, a caching software company, and Schooner Information Technology, a developer of flash-optimized database and data store solutions. With SMART, SanDisk gains established customers and a very strong SAS interface and NAND management technology which should complement SanDisk's existing technologies that were either internally developed or procured through the acquisition of Pliant.

As with the Pliant acquisition, this move represents a change for SMART, but not that significant of a change since we understand that SMART already procured the bulk of its flash from SanDisk's fab partner Toshiba. Toshiba flash and SanDisk flash are essentially the same. SMART will benefit through SanDisk's very open communications between flash chip designers and controller designers. Plaintiff was said to have learned a lot about flash management once it was able to tap into SanDisk's very deep understanding of NAND flash behavior.

SanDisk: Out to Win

It is clear that SanDisk is devoting enormous resources in its quest to become a leader in the high-growth enterprise SSD market. These four acquisitions provide the company with combined hardware and software strengths that few of its competitors already have in place.

SanDisk expects to gain from SMART's products, technology, talent, and customers - the combined company will have products qualified with six of the top seven storage OEMs worldwide. Objective Analysis believes that SMART's established customer base should very well augment SanDisk's existing efforts to penetrate this important market.

SanDisk is using its strong cash position to gain access in the highest growth market in flash today, and will be able to differentiate itself from competitors who have weaker SSD offerings and no underlying software. We doubt that this will be the last such acquisition as SanDisk assembles the team that it will use to gain prominence in the enterprise SSD market.

Overall we see SMART as a very positive addition to the SanDisk enterprise offering, and expect to see strong synergies emerge through this acquisition.

Objective Analysis has published a report: [**The Enterprise SSD: Technologies and Markets**](#), which outlines the enterprise SSD market and profiles its players, forecasting unit shipments and revenues over the following five years. The report can be purchased for immediate download from the Objective Analysis website.

Jim Handy

OBJECTIVE ANALYSIS

Semiconductor Market Research

www.Objective-Analysis.com

Forbes.com/sites/jimhandy

TheSSDguy.com

TheMemoryGuy.com

PO Box 440

Los Gatos, CA 95031-0440

USA

+1 (408) 356-2549