Western Digital.

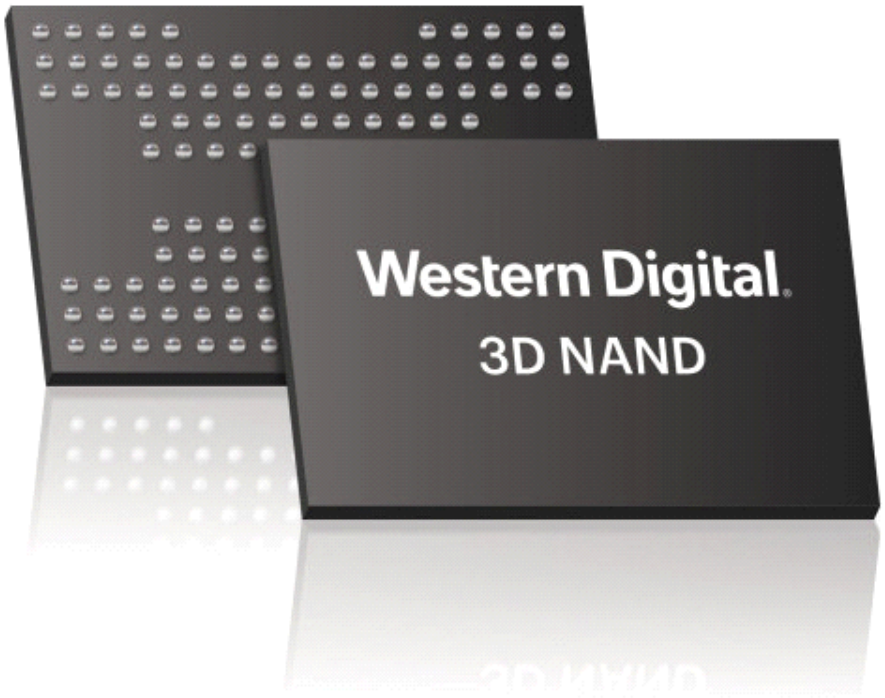
July 24, 2017

Western Digital Announces Four-Bits-Per-Cell (X4) Technology on 3D NAND

Further Enhances Industry Leadership in Multi-Level Cell Storage
Builds on X4 Expertise in 2D NAND

SAN JOSE, Calif.--(BUSINESS WIRE)-- Western Digital Corp. (NASDAQ: WDC) today announced its successful development of four bits per cell, X4, flash memory architecture offering on 64-layer 3D NAND, BiCS3, technology. Building on its pioneering innovation of X4 for 2D NAND technology and past success in commercializing it, the company has now developed X4 for 3D NAND by leveraging its deep vertical integration capabilities. These include silicon wafer processing, device engineering to provide sixteen distinct data levels in every storage node, and system expertise for overall flash management. BiCS3 X4 technology delivers an industry-leading storage capacity of 768 gigabits on a single chip, a 50 percent increase from the prior 512 gigabit chip that was enabled with the three bits per cell (X3) architecture. Western Digital will showcase removable products and solid-state drives built with BiCS3 X4 and systems capabilities in August at the Flash Memory Summit in Santa Clara, California.

This Smart News Release features multimedia. View the full release here:
http://www.businesswire.com/news/home/20170724005390/en/



Western Digital announces its successful development of four bits per cell, X4, flash memory architecture offering on 64-layer 3D NAND, BiCS3, technology. (Photo: Business Wire)

"The implementation of X4 architecture on BiCS3 is a significant development for Western Digital as it demonstrates our continued leadership in NAND flash technology, and it also enables us to offer an expanded choice of storage solutions for our customers," said Dr. Siva Sivaram, executive vice president, Memory Technology, Western Digital. "The most striking aspect in today's announcement is the use of innovative techniques in the X4 architecture that allows our BiCS3 X4 to deliver performance attributes comparable to those in BiCS3 X3. The narrowing of the performance gap between the X4 and X3 architectures is an important and differentiating capability for us, and it should help drive broader market acceptance of X4 technology over the next several years."

This latest achievement follows a nearly three-decade long legacy of industry firsts in flash innovation, including the industry's multi-level cell (MLC) flash technologies using two bits (X2) and three bits (X3) per cell.

The company expects to productize its 3D NAND X4 technology across multiple end-use applications that can take advantage of the higher capacity points supported by X4. Future generations of 3D NAND technology, including the 96-layer BiCS4, are also expected to feature X4 capabilities.

About Western Digital

Western Digital is an industry-leading provider of storage technologies and solutions that enable people to create, leverage, experience and preserve data. The company addresses ever-changing market needs by providing a full portfolio of compelling, high-quality storage solutions with customer-focused innovation, high efficiency, flexibility and speed. Our products are marketed under the HGST, SanDisk and WD brands to OEMs, distributors, resellers, cloud infrastructure providers and consumers. Financial and investor information is available on the company's Investor Relations website at

investor.wdc.com.

Forward-Looking Statements

This news release contains certain forward-looking statements, including expectations for 3D NAND technology, including its development, capabilities, performance improvements, applications, capacities and customers as well as its participation in the Flash Memory Summit that are based on current expectations. There are a number of risks and uncertainties that may cause these forward-looking statements to be inaccurate including, among others: volatility in global economic conditions; business conditions and growth in the storage ecosystem; impact of competitive products and pricing; market acceptance and cost of commodity materials and specialized product components; actions by competitors; unexpected advances in competing technologies; our development and introduction of products based on new technologies and expansion into new data storage markets; risks associated with acquisitions, mergers and joint ventures; difficulties or delays in manufacturing; and other risks and uncertainties listed in the company's filings with the Securities and Exchange Commission (the "SEC"), including the company's Form 10-Q filed with the SEC on May 8, 2017, to which your attention is directed. You should not place undue reliance on these forward-looking statements, which speak only as of the date hereof, and the company undertakes no obligation to update these forward-looking statements to reflect subsequent events or circumstances.

1 gigabit = 1,000,000,000 bits. Actual user storage less.

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