

SanDisk

Choosing the Right Non-Volatile Memory for Your Application Needs

August 2009





Forward Looking Statement

During our presentation today we will be making forward-looking statements. Any statement that refers to expectations or other characterizations of future events or circumstances is a forward-looking statement, including those relating to industry trends and future products. Actual results may differ materially from those expressed in these forward-looking statements including due to the factors detailed under the caption "Risk Factors" and elsewhere in the documents we file from time-to-time with the SEC, including our annual and quarterly reports. We undertake no obligation to update these forward-looking statements, which speak only as of the date hereof.



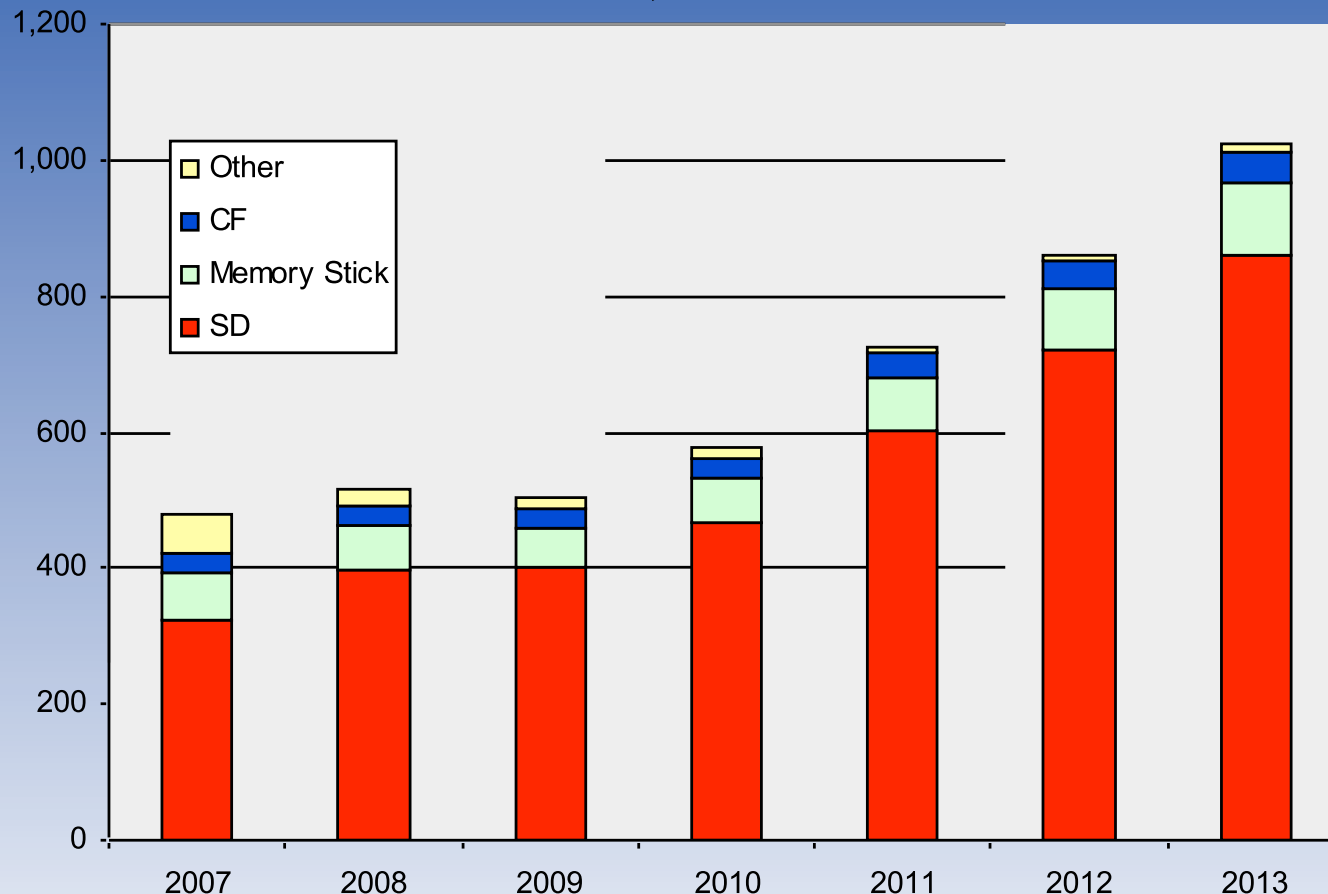
Many Flash Options Available Today

- Over the course of many years, non-volatile memory (NVM) has become available in many form factors
 - Removable memory formats ranging SD™ Cards, CompactFlash® Cards, USB Drives, etc.
 - Embedded formats including TSOP components, eSD, eMMC, etc.
- The base technology of the products also varies dramatically
 - Execute in Place NOR and M-ROM memories
 - Mass storage NAND available as SLC, MLC, and 3-bit/cell (X3)

How can today's system designers, who are not memory experts, decide which product best suits his/her needs?

SD™ is the Dominant Card Form Factor

Flash cards, millions of units



Note: SD™ card format includes SD, miniSD™, and microSD™ formats; Memory Stick® card format includes: Memory Stick Micro™ M2™ and Memory Stick PRO Duo™ formats

- Removable products minimize the BOM while providing a long term user upgrade path and host interoperability

Source: iSuppli
Data Flash Market Trackers, 2Q09 and 4Q08
June 2009 and December 2008

Embedded Products Provide a Long List of Tradeoffs

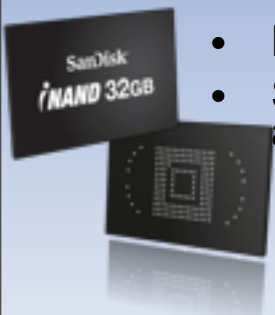
- Low capacity, execute-in-place memories such as M-ROM and NOR flash can be used for some applications
 - Typically used when little or no system memory available for shadowing code
 - Used in very low-end mobile phones, Set Top Boxes, Routers, etc.
 - Very inexpensive to add a memory card slot for expansion



- More often, designers are using managed NAND solutions to provide a balanced consumer tradeoff
 - NAND typically provides optimal cost/performance tradeoff
 - Bootable products are now available such as SanDisk® eMMC 4.3+, etc.
 - SSD products provide high capacity and optimized management for PCs, laptops, and netbook computers



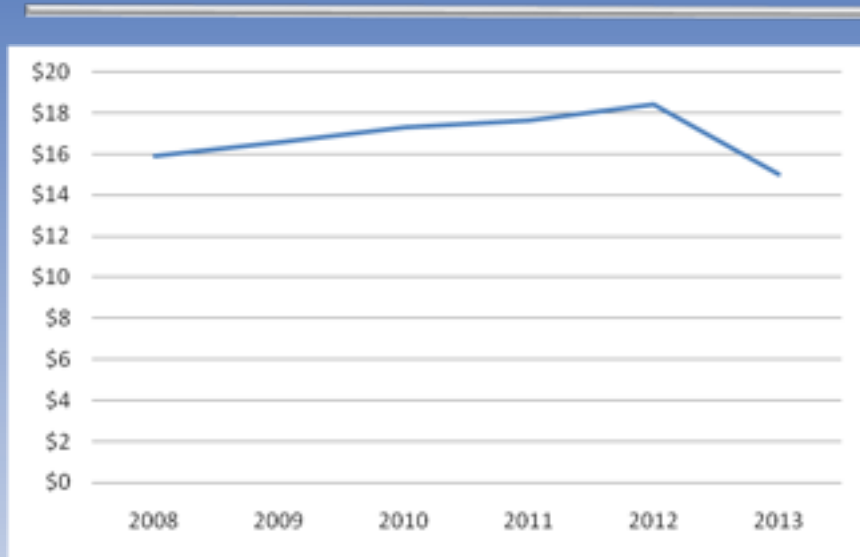
- Various physical form factors are available for other optimizations
 - BGA and LGA products to minimize footprint and reduce product size
 - Connector based solutions for just in time manufacturing and inventory management





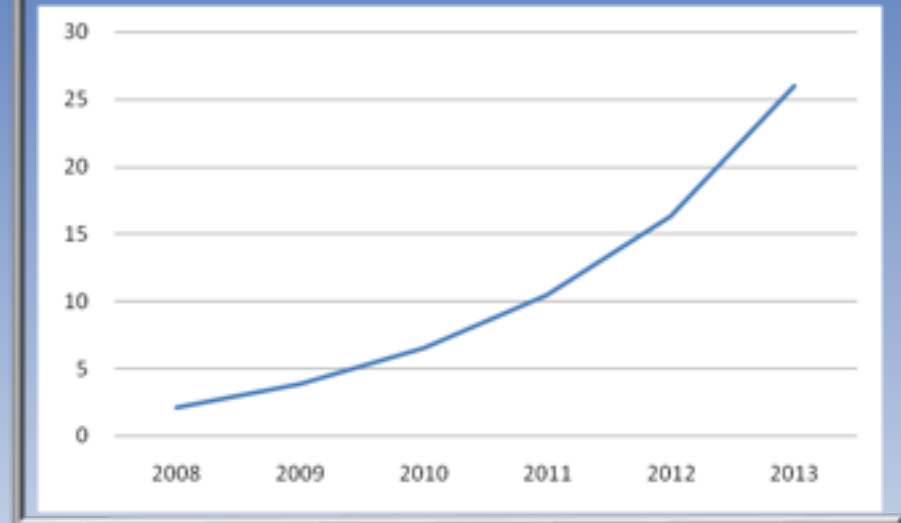
The One Constant: Consumers Expect More for Less

Market Expects to Pay



SRP

Market Expects to Get



Avg. Capacity (GB)

- To ensure success, designers must choose a technology that meets consumer expectations of capacity and price

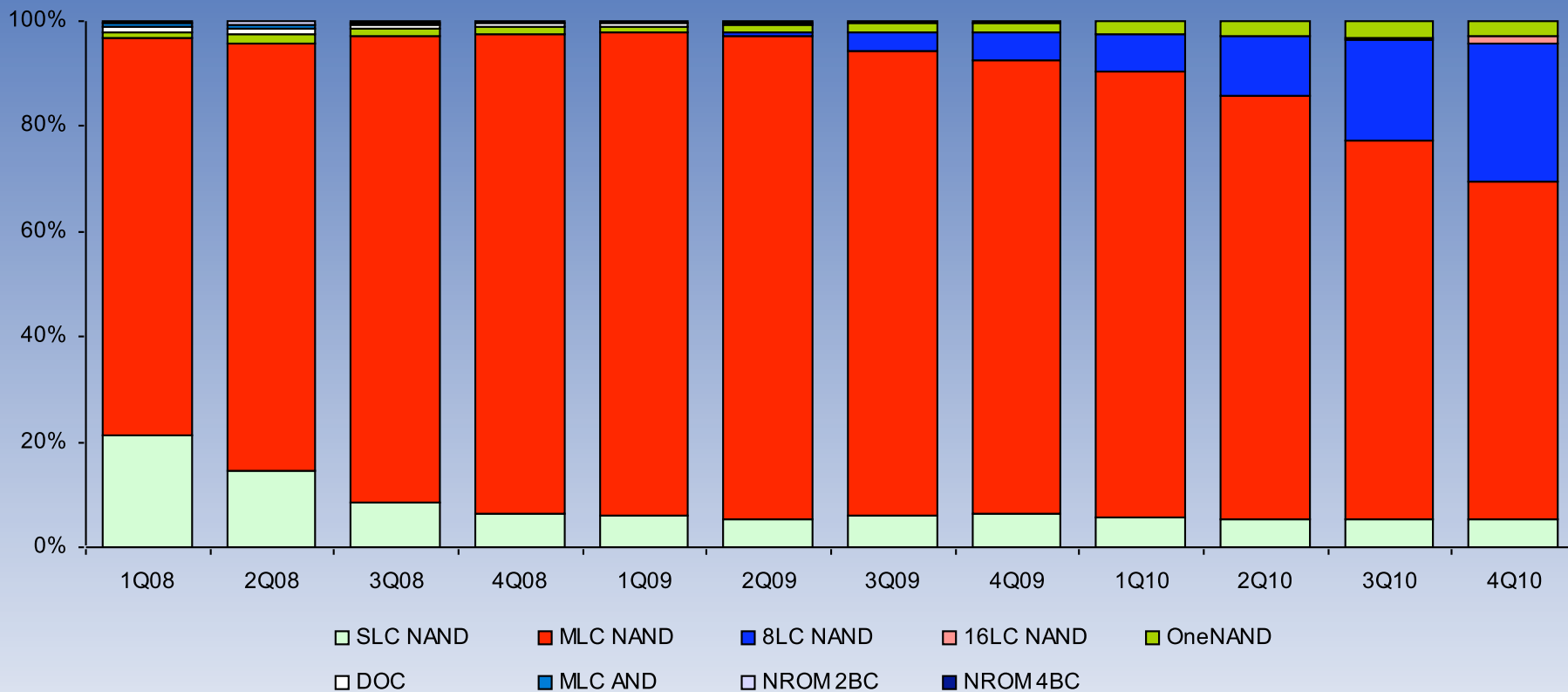
Source: iSuppli
Data Flash Market Tracker, 1Q09
March 2009



3-Bit/Cell NAND Will Become the Dominant Technology in the Market

Percentage of Megabytes

Quarterly Supply of All Densities of NAND Flash by Technology, 2008-2010



Source: Gartner July, 2009
 "NAND Flash Supply and Demand, Worldwide,
 1Q08-4Q10: 2Q09 Update"



Design Today for Tomorrow's Needs

- Removable products are typically the easiest solution for system designers
 - Minimizes technical risk as interface is standard
 - Lowers total BOM cost and cost of inventory
 - Interoperability across devices such as PC to TV
 - Provides freedom for end user to decide optimization

- Some design require embedded solutions due to product requirements and “out of the box experience”
 - Managed NAND products becoming the standard as they can provide industry standard interfaces with a variety of host usage optimizations

- Focus on the consumer's perceptions, consider today's newer technologies such as 3 Bit/Cell NAND to ensure your decisions today will be acceptable tomorrow!



Thank You

August 18, 2009

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Thank You

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