



October 12, 2005 03:01 AM US Eastern Timezone

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## Spansion Announces World's First Single-chip 1 Gigabit NOR Flash Memory; First Samples Based on 90-Nanometer MirrorBit(TM) Technology

SUNNYVALE, Calif.--(BUSINESS WIRE)--Oct. 12, 2005--Spansion LLC, the Flash memory venture of AMD (NYSE:AMD) and Fujitsu Limited (TOKYO:6702), today announced it is sampling the world's first single-chip 1 gigabit (Gb) NOR Flash memory device to customers in the embedded market. Based on 90-nanometer (nm) MirrorBit(TM) technology, the 1 Gb MirrorBit GL device is the highest density, single-chip NOR Flash memory device on the market. It is designed for reliable code execution and data storage in a wide range of embedded applications including automotive navigation systems, communications infrastructure equipment, gaming and industrial control. The 1 Gb MirrorBit GL device is the first based on the Spansion 90-nm MirrorBit process technology unveiled last month.

"Our innovative MirrorBit technology has enabled us to reach this very important milestone, with a product that meets the density, quality, cost structure and scalability needs of the diverse embedded market," said Ian Williams, corporate vice president of marketing for the Embedded Memory Division for Spansion. "High density single-chip NOR Flash memory products help customers lower their design cost, enhance end product features, and ensure reliable, fast code execution. In addition, with this added storage capacity, customers can leverage a single chip for both code execution and data storage."

"Spansion's announcement of a 1 Gb 90-nm NOR device keeps the company in the density lead, where they have been since last year's introduction of a 512Mb chip," said Jim Handy, Semico's Director of Nonvolatile Memory Services. "It is important that they have designed this part and the family as a whole for the needs of the embedded market, which often gets overlooked in favor of Flash chips for cell phones."

The 1 Gb MirrorBit GL device extends the MirrorBit GL family, which also includes the industry's only single-chip 512 megabit (Mb) NOR Flash memory device in production. By scaling MirrorBit technology to 90 nm and doubling the density of its NOR Flash memory, Spansion reduces component costs because it enables customers to use a single-chip device, instead of multiple lower density discrete solutions or more costly multi-chip packages containing stacked lower density die. Moreover, as an extension of its existing embedded product families, the device allows customers to easily migrate to new high-density solutions, without having to engage in costly and complex system redesign.

### Easier Migration with Spansion(TM) NOR Flash Memory Solutions

Spansion's new 1 Gb device augments the company's broad product offering which includes densities ranging from 1 Mb up to 1 Gb. Backwards compatible with previous generation products (down to the 2 Mb density), the device supports common software, pin-out and packaging and can be rapidly deployed without requiring costly board redesign. The 1 Gb MirrorBit GL is package and pin-out compatible with all MirrorBit GL-M (230 nm), MirrorBit GL-A (200 nm) and MirrorBit GL-N (110 nm) devices as well as legacy Fujitsu and AMD LV family members (back to the 320 nm lithography). Packaging is also JEDEC-compliant.

### Technical Features and Benefits of the 1G MirrorBit(TM) GL Product

The Spansion 1 Gb MirrorBit product joins the Spansion GL family which includes densities ranging from 16 Mb up to 512 Mb - all in production today. The 1 Gb MirrorBit GL operates at 3.0 volts (Vcc),

features a random read speed of 110 nanoseconds (ns), and offers a page read speed of 25 ns via an 8-word page buffer.

The new 1 Gb MirrorBit GL part enables users to either execute code directly out of the Flash memory or shadow into DRAM at high speeds. The device supports industrial temperature ranges from -40 to +85 degrees Celsius. The 1Gb MirrorBit GL uses a NOR architecture that is designed to deliver 100 percent good sectors, eliminate the need for ECC and support a standard parallel interface, reducing system complexity and cost.

### Enhanced Security

For applications requiring advanced security, Spansion supports Advanced Sector Protection (ASP) technology on the 1 Gb MirrorBit GL. ASP provides robust and complete designer-defined security with 64-bit password protection for sensitive software algorithms or parameters. The feature can be used by designers to store, lock and protect code or data stored on any sector of the device, or assign an electronic serial number (ESN) to their product. In some applications, the central office can use an ESN to identify their equipment remotely, control service levels and record access for billing purposes. The feature can help prevent malicious attacks and viruses, as well as help prevent unauthorized use of services.

### Availability, Packaging and Pricing

Spansion is providing samples of the 1 Gb MirrorBit GL device now to a select group of customers. Production is slated to begin in late Q4. The part number for the 1 Gb MirrorBit GL is S29GL01GP. The product is offered in 56-pin TSOP and 64-ball Fortified BGA packaging. It will be priced at approximately \$18.50 in quantities of 10,000.

### Spansion(TM) Solutions for the Embedded Market

Spansion offers embedded system designers the broadest selection of Flash memory, including 5V, 3V and 1.8V products from 1 Mb to 1 Gb in packaged and Known Good Die (KGD) configurations. With hundreds of Flash memory products and configurations to choose from, Spansion has a solution to meet diverse customer needs.

Conventional Flash memory is offered using high-density MirrorBit technology or floating-gate technology, in page or bust mode. The simultaneous read-write architecture can be combined with a burst- or page-mode interface to improve performance of execute-in-place applications. And, with the new Serial Peripheral Interface (SPI) product line, Spansion offers embedded system designers a new way to achieve smaller footprint, lower power consumption, greater reliability, and overall cost savings.

### About MirrorBit(TM) Technology

MirrorBit technology is Spansion's innovative Flash memory technology that features high yields and low-cost structure compared to traditional floating gate technology. MirrorBit is manufactured using a non-conductive storage element and uses 40 percent fewer of the most critical manufacturing steps than floating gate technologies, leading to higher yields and ultimately higher densities and higher performing products produced cost effectively. Spansion(TM) 90nm MirrorBit technology is the foundation for a compelling high-density Flash memory roadmap, featuring products combining the density, performance, reliability and cost structure required for wireless and embedded applications. In addition to the new 1 Gb GL device announced today, Spansion is also developing a 1 Gb device based on its MirrorBit ORNAND(TM) architecture. The first MirrorBit ORNAND product will be designed to satisfy the data storage needs in wireless applications.

### About Spansion

Spansion, the Flash memory venture of AMD and Fujitsu, is the largest company in the world dedicated exclusively to developing, designing, and manufacturing Flash memory products. In fiscal 2004, Spansion's total net sales were approximately \$2.3 billion. The company offers the broadest NOR Flash memory portfolio in the industry, for use in the wireless, automotive, networking, telecommunications and consumer electronics markets. The company's portfolio is supported by a worldwide network of advanced manufacturing facilities, system-level expertise and dedicated design support, and an unwavering commitment to our customers' success. Information about Spansion Flash memory solutions is available at <http://www.spansion.com>.

#### Cautionary Statement

This release contains forward-looking statements concerning that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Investors are cautioned that the forward-looking statements in this release involve risks and uncertainties that could cause actual results to differ materially from the company's current expectations. Risks that the company considers to be the important factors that could cause actual results to differ materially from those set forth in the forward-looking statements include the possibility that demand for the company's Flash memory products will be lower than currently expected; that OEMs will increasingly choose NAND-based Flash memory products over NOR-based Flash memory products for their applications; that customer acceptance of MirrorBit technology will not continue to increase; that competitors may introduce new memory technologies that may make the company's Flash memory products uncompetitive or obsolete; that the company may not achieve its current product and technology introduction or implementation schedules; and that the company will not be able to raise sufficient capital to enable it to establish leading-edge capacity to meet product demand and maintain market share. We urge investors to review in detail the risks and uncertainties in the company's Securities and Exchange Commission filings, including but not limited to the company's Registration Statement on Form S-1 and AMD's Quarterly Report on Form 10-Q for the quarter ended June 26, 2005.

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