

Spansion Demonstrates High-Density Flash Memory Solutions Based On 90nm Mirrorbit Technology

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Spansion LLC, the Flash memory venture of AMD and Fujitsu Limited, today showed silicon of its single-chip 1 Gbit GL NOR Flash memory and demonstrated working silicon of its 1Gb ORNAND Flash memory based on 90nm MirrorBit technology. Manufactured at Spansion's flagship Fab 25 facility in Austin, Texas, Spansion 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.

"Scaling MirrorBit technology to 90 nanometers in 2005 is an important milestone," said Bertrand Cambou, president and CEO of Spansion. "Customers prefer NOR architectures for code execution due to their higher reliability, higher read performance and ease of use. By scaling MirrorBit technology to even higher densities on 90 nanometer technology with both our NOR and ORNAND architectures, we are enabling our customers to continue to enjoy the benefits of MirrorBit technology for code storage and also expanding their use of MirrorBit technology for data storage in wireless and embedded devices."

During an event held at Fab 25, Spansion conducted a live demonstration of a 1 Gb ORNAND device based on MirrorBit technology at 90nm for use as data storage in a wireless handset application. Using a handset reference design equipped with Spansion NOR Flash memory for code



storage and a 1Gb MirrorBit ORNAND device for data storage, Spansion representatives demonstrated multimedia features including camera, camcorder, music and video playback. The demonstration highlighted the high read performance of Spansion products, enabling quick phone boot-up and video playback, as well as write performance fast enough for a QVGA camcorder (320x240 pixels) recording at 15 frames per second.

Read performance impacts how long it takes for users to turn on their phone, operate different functions and applications such as games and access key content such as videos and music. Better read performance will improve the user experience with these multimedia features on wireless phones. MirrorBit at 90nm addresses both embedded code and data storage applications, which have traditionally been served by either NOR or NAND architectures. Spansion has achieved working silicon of a single-chip 1 Gb GL NOR device, the highest density on the market. The company expects the device to deliver high read performance to satisfy the high-density code and data storage needs in many embedded applications.

Spansion also provided further details for its 90nm MirrorBit product roadmap, including samples of 1Gb devices with both NOR and ORNAND architectures planned for this year, and plans for a 2Gb density ORNAND device by mid next year. In addition, the company expects to sample its very high performance 1.8-volt 512Mb NOR device in early 2006. Spansion also plans to begin production of 65nm MirrorBit technology in 2006.

About MirrorBit 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.

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