PRESS RELEASE

For Immediate Release

GRANDIS AWARDED SEVEN KEY STT-RAM PATENTS

MILPITAS, Calif., Apr. 30, 2009 — Grandis, Inc., the pioneer in spin transfer torque random access memory (STT-RAM), today announced that it has recently been awarded seven key patents in STT-RAM technology. The new patents cover important advances in STT-RAM speed and power consumption for standalone and embedded applications, and bring the company's United States-granted patent total to 46 out of more than 80 applications filed to date. Grandis also has many worldwide issued and pending patents in STT-RAM technology. STT-RAM is a next-generation, solid-state memory technology that is dense, fast, non-volatile, and scalable, making it the leading universal memory solution for the 45-nanometer technology node and beyond.

The newly-granted patents cover a wide range of technologies and key improvements related to STT-RAM, including in-plane and perpendicular magnetic tunnel junction (MTJ) structures and circuit architectures. One patent discloses the use of charge pumps to provide boosted voltages to the transistor selection devices in STT-RAM bit-cells, enabling significantly smaller cell size and higher density. A second introduces a method for providing initial torque to an MTJ, the key storage element and building block of STT-RAM, thereby reducing write speed and providing tighter write distribution. A third patent discloses a novel architecture that enables ultra-high density, cross-point arrays of STT-RAM for embedded applications. The remaining patents introduce innovative MTJ biasing and domain structures that result in reduced write current and enhanced thermal stability, and cover a comprehensive range of MTJ free layer and insertion layer materials that enhance spin polarization and reduce STT write current in both in-plane and perpendicular MTJ structures. Together, the patents provide critical improvements in write speed, power consumption, and density of STT-RAM, and open up new applications for the technology in both the standalone and embedded spaces. The newly-granted U.S. patent numbers are 7486551, 7486552, 7489541, 7495303, 7502249, 7515457, and 7518835.

"Our mission is to expedite our licensees' and partners' development of STT-RAM and reduce their time-to-market," said Farhad Tabrizi, president and CEO of Grandis. "Leading-edge semiconductor companies facing cost and performance challenges need viable, scalable alternatives to existing memory technologies. The patents granted in the last few weeks demonstrate our sustained leadership in STT-RAM, further enhance the intellectual property and

enabling services we offer our licensees, and strengthen our efforts to drive commercialization and cost-effective adoption of STT-RAM technology across multiple market segments."

Grandis has been the world leader in the development of STT-RAM, also known as STT-MRAM or SpinRAM, since 2002. It has pioneered the development of innovative materials and structures to enhance spin-transfer efficiency and reduce STT write current while maintaining thermal stability. It has established a comprehensive patent portfolio in spintronics and STT-RAM technology and a strong technical team with extensive expertise in magnetic thin film and semiconductor memory technology. Grandis licenses its STT-RAM technology to OEMs, semiconductor houses, and wafer fabrication companies who benefit from Grandis' unparalleled experience in STT-RAM technology, including the most optimized materials and process conditions developed in its recently-upgraded 300-millimeter MTJ fabrication facility. Its intellectual property portfolio includes key fundamental and practical implementation patents that cover all aspects of STT-RAM technology, from single, dual and perpendicular MTJ materials and structures to device integration, circuit design and systems.

About Grandis, Inc.

Grandis is the pioneer in the development of spin-transfer torque RAM (STT-RAM), a universal and scalable memory solution. Grandis licenses its technology to companies that are developing a variety of products incorporating stand-alone and embedded STT-RAM memory. It offers its licensees a complete range of support services from process installation through qualification. By combining non-volatility and high performance with low-power consumption and low cost, STT-RAM can revolutionize the performance of electronic products in many areas. Grandis was established in 2002, and is headquartered in Silicon Valley, California. Investors include Applied Ventures LLC, Sevin Rosen Funds, Matrix Partners, Incubic and Concept Ventures. Additional information about the company is available on the Internet at www.grandisinc.com.

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