MOSAID Technologies Incorporated

For Immediate Release

MOSAID Now Sampling HLNAND Flash Memory Semiconductor Chip and Module

Two new devices make Storage Class Memory viable today

OTTAWA, Ontario – July 22, 2009 **–** MOSAID Technologies Inc. (TSX:MSD) today announced that HLNAND™ (HyperLink NAND), the Company's breakthrough Flash memory architecture and interface, is now available for sampling. MOSAID's two new devices – a semiconductor chip and a memory module – will be showcased at the 2009 Flash Memory Summit, August 11-13, 2009 in Santa Clara, California. The devices are a 64Gb MLC (Multi Level Cell) HLNAND MCP (Multi-Chip Package), and a 64GB HLDIMM (HyperLink Dual In-Line Memory Module).

Achieving Storage Class Memory Performance Today

SCM (Storage Class Memory) has been identified by industry experts as the first significant development in computer memory hierarchy in decades. SCM involves replacing or augmenting rotating magnetic disk storage with solid state storage. This approach promises vast improvements in computer performance and power consumption, essential for the next generation of high performance enterprise-class applications.

However, current NAND Flash devices are ineffective in implementing true SCM because they utilize a slow (40MB/s) interface that allows only a few devices to be connected to a single channel. MOSAID's new HLNAND devices feature a fast (266MB/s) interface and support virtually unlimited devices on one channel, while also offering lower interface power.

"With our new devices, true SCM is viable today using proven NAND Flash technology," said Jin-Ki Kim, Vice President of Research and Development, MOSAID. "HLNAND is the first Flash technology to use a high performance point-to-point interface that is scalable to large memory configurations without bandwidth degradation."

Innovative Daisy-Chain Interface Delivers Design Flexibility, Performance

MOSAID's new 64Gb MCP Flash memory device features a 266MB/s HyperLink interface and four memory banks. The 12mm x 18mm, 100-pin MCP contains four stacked 16Gb MLC NAND Flash die and one ASIC (Application Specific Integrated Circuit) die to control the four Flash die as independent banks, and to support the high-speed HyperLink interface and protocol.

The unified synchronous interface and protocol of the device greatly improves data throughput while supporting feature-rich operation. Unlike conventional NAND Flash, which employs a performance limiting multi-drop bus architecture, HLNAND Flash utilizes the HyperLink daisy-chain ring architecture to facilitate higher levels of system integration with greater expandability and flexibility. The unidirectional point-to-point interface provides further performance improvement with higher clock rate, better signal integrity and lower power consumption.

Scalable Module Design Enables Upgradable SCM Systems
MOSAID's HLDIMM incorporates eight HLNAND MCPs, for a total of 32 NAND die. With 16GB individual NAND die, the module delivers 64GB of non-volatile memory capacity. The HLDIMM provides four byte-wide HyperLink channels to deliver 1066MB/s read bandwidth and 1066MB/s write bandwidth, for an aggregate bandwidth of 2188MB/s. HLDIMMs provide flexibility in supporting a wide range of end-user configurable memory subsystems. The module employs the widely used 200-pin DDR2 SO-DIMM form factor.

"MOSAID's HLDIMM enables cost-effective, user-upgradeable SCM systems. Compared to conventional SSDs using soldered-on NAND components, the module approach offers significant benefits to both the product supplier and end user," said Peter Gillingham, Chief Technology Officer, MOSAID. "Suppliers do not have to commit to fixed configurations during board manufacturing and can save significant inventory costs. Users can easily re-configure or upgrade their boards to meet changing system requirements. "

Manufacturing and Availability
The 64Gb HLNAND MCP and 64GB HLDIMM are now available from MOSAID for sampling. Licenses for manufacturing HLNAND devices in production quantities are available to semiconductor suppliers, packaging and module suppliers, product manufacturers and system integrators. MOSAID's engineering team is ready to support licensees for rapid product introduction.

See MOSAID at 2009 Flash Memory Summit
MOSAID is showcasing HLNAND at the 2009 Flash Memory Summit, booth #207 and will present a paper titled, *Improving System Performance and Longevity with a New NAND Flash Architecture.*

High resolution photography and supporting documentation is available upon request.

About HyperLink (HL) NAND Flash
As the first major new Flash memory architecture and device interface development in 20 years, HLNAND Flash is a high performance solution that combines MOSAID's own HyperLink memory technology with industry standard NAND Flash cell technology to deliver the industry's most advanced feature set, reaching sustained I/O bandwidths more than ten times higher than conventional Flash. For more information, visit www.hlnand.com.

About MOSAID
MOSAID Technologies Inc. is one of the world's leading intellectual property companies. MOSAID develops semiconductor memory technology and licenses patented intellectual property in the areas of semiconductors and telecommunications systems. MOSAID counts many of the world's largest technology companies among its licensees. Founded in 1975, MOSAID is based in Ottawa, Ontario. For more information, visit www.mosaid.com.

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