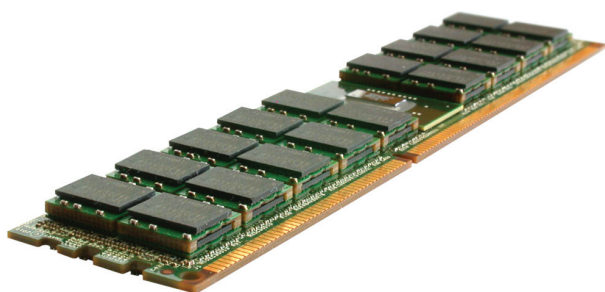# LRDIMM

LRDIMM

SMART Modular Technologies' load-reduced dual in-line memory module (LRDIMM) is capable of delivering more than four times the bandwidth while reducing overall power consumption. Traditional RDIMMs limit the amount of memory that can be accommodated to their loading profile. SMART's LRDIMMs with rank multiplication replace the register with an isolated memory buffer and significantly reduce the load. Rank multiplication enables more ranks of DRAM to be populated on the memory module and accessed by the CPU memory controller resulting in higher capacity and increased bandwidth.

SMART's LRDIMMs can be used on some existing platforms (Supermicro X8DTN+ and Tyan S7012). This is done with a system BIOS change that allows the LRDIMMs to be recognized. The benefit is higher memory capacity and higher performance without a system board or processor change.

Applications and Platforms

- Cloud-computing
- Server-virtualization applications
- Intel Sandy Bridge servers
- SuperMicro's DX8DTN+ server board using Intel Westmere-EP processors
- Tyan's S7012 server board using Intel Westmere-EP processors

Key Features and Specs

- Inphi isolated memory buffer (iMB™) instead of a register which enables higher performance at maximum system capacity
- JEDEC compliant and widely supported by the industry
- Boosts overall server and storage system memory capacity by up to four times
- Data rates up to 1600MHz
- LRDIMM uses off-the-shelf, mainstream 2Gb DDR3 DRAM technology

Ordering Information

SMART Part Number	Density	Height (in)	Module Config.	DeviceType	Device Package
SG5722G4CH8L0PH	16GB	30.40mm	2Gx72	1Gx4	FBGA

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