Intel® RAID Controller SRCSASJV Memory List

Test Report Summary

Revision 2.0

December 2008

Revision History

Date	Rev	Modifications
September 2007	1.0	Initial release.
December 2008	2.0	Added support for 1GB mini-DIMM.

Disclaimers

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1. Overview of Memory Testing

Caution: DIMM devices with gold contacts should NOT be placed into DIMM sockets with tin-lead contacts and vice-versa. Mixing dissimilar metal contact types results in unreliable memory operation.

Memory testing qualifies Dual In-Line Memory Modules (DIMMs) for use with the Intel® RAID Controller SRCSASJV. Intel requires strict guidelines to be met before a DIMM vendor is included in the qualified memory list. To be acknowledged on the list as a fully-functional DIMM, the memory must undergo rigorous tests to ensure that the product will perform the intended product functions.

Memory qualification for Intel's RAID controller products is performed in Intel labs and/or external test laboratories.

The qualified memory lists for Intel's RAID Controller products categorize memory modules as Advanced Tested. The Advanced Testing process involves:

- **Paper qualification**: This qualification ensures that the DIMM meets Intel's memory specifications. It involves a review of critical timings, electrical characteristics, timing requirements, environmental requirements, and packaging requirements.

- **Standard voltage and room temperature functional test**: The memory module is tested on the target RAID controller for at least 24 hours using a custom test software operating under Microsoft Windows*.

- **Voltage and temperature margin functional test**: The memory module is tested on the Intel's RAID controller product with test softwares and operating systems. This is a 24-hour test that uses various voltage and temperature margin conditions.

DIMMs that have completed Advanced Testing are known to be compatible with the product on which they were tested, and with the test software and operating system that were utilized during the test procedure.

2.   Qualified DDR SDRAM DIMMs

The Intel® RAID Controller SRCSASJV is an eight-port SAS RAID controller for high-performance / high-security server applications. It supports RAID 0, 1, 5, 6, 10, 50, and 60 array drives and private / pool hot-fix drives. It includes an on-board LSI* 1078 SAS ROC that is an integrated SAS and I/O controller, which provides 1.5 and 3 Gb/s data transfer rates per port, with an embedded Power PC 440 core running at 500 MHz. With 8-bit to 10-bit encoding, this translates to about 150 MB/s and 300 MB/s. Standard DDR2 667/800 compatible ECC registered Mini-DIMMs are supported. The controller is PCI Express* compliant and includes a BIOS (X-ROM) firmware tool for array configuration and management.

The controller can utilize DDR2-667 ECC registered SDRAM memory modules for caching and is compatible with memory modules that meet these specifications:

- 244-pin gold-plated SDRAM Mini-DIMMs
- Registered PC2-5300 ECC SDRAM Memory Modules
- 256 MB, 512 MB, and 1024 MB capacities
- 1.8 V memory only
- Single rank DIMMs

The controller can utilize DDR2-800 ECC registered SDRAM memory modules for caching and is compatible with memory modules that meet these specifications:

- 244-pin gold-plated SDRAM Mini-DIMMs
- Registered PC2-6400 ECC SDRAM Memory Modules
- 256 MB, 512 MB, and 1024 MB capacities
- 1.8 V memory only
- Single rank DIMMs

The following tables list DIMM devices tested to be compatible with the Intel® RAID Controller SRCSASJV. This document will be updated when additional DIMMs are added as qualified memory during the life of the Intel® RAID Controller SRCSASJV.

Only memory modules that are listed in the following tables have been tested for compatibility with the Intel® RAID Controller SRCSASJV. Other memory modules may result in unpredictable operation and data loss.

Note: This list is not all-inclusive. It is provided as a convenience to Intel's customers, but Intel does not make any representations or warranties whatsoever regarding the quality, reliability, functionality, or compatibility of these memory modules.

2.1   Registered ECC DDR2 SDRAM Mini-DIMMs, 256 MB

Manufacturer	Part Number	DIMM-Battery Unit	Lead Free
Intel Corporation	AXXRPCM3	Yes	Yes
PNY Technology	69002085INA-T	Yes	Yes
Southland	40002043-01	No	Yes
Southland	40002043-02	No	Yes
Southland	40002043-03	No	Yes

2.2   Registered ECC DDR2 SDRAM Mini-DIMMs, 512 MB

Manufacturer	Part Number	DIMM-Battery Unit	Lead Free
Southland	40001965-01	No	Yes
Southland	40001965-02	No	Yes
Southland	40001965-03	No	Yes
PNY	69002242INB-T	No	Yes

2.3   Registered ECC DDR2 SDRAM Mini-DIMMs, 1 GB

Note: *To support 1 GB Registered ECC DDR2 SDRAM Mini-DIMM, the firmware version 1.20.52-0537 or later is required.*

Manufacturer	Part Number	DIMM-Battery Unit	Lead Free
Gigaram	GR2DM8B-E1GB667	No	Yes
Gigaram	GR2DM8B-E1GB800	No	Yes

3.   Sales Information

Vendor Name	Web URL	Vendor Direct Sales Info
PNY Technologies	http://www.pny.com	sales@avedmemory.com Tel: 1-714-573-5000
Dataram	http://www.dataram.com	phenke@dataram.com Tel: 800-328-2726 x2239
ATP Electronics	http://www.atpusa.com	sales@atpusa.com Tel: 1-408-732-5831
Micron	http://www.micron.com	Tel: 1-208-368-3900
TRS	http://www.trs-space.de	pgaeng@trs-space.de Tel: +49-7249-910-380
Virtium	http://www.virtium.com	sales@virtium.com Tel: +1-949-888-2444x120
Southland	http://www.southlandmicro.com	oemsales@southlandmicro.com Tel: +1-949-380-1958
Qimonda	http://www.qimonda.com	

4.   Intel Product Dealers and Product Integrators

The Intel Product Dealer program was designed in North America to support system integrators building and selling a limited number of systems per year. More information on this program is available through the Intel web site at http://channel.intel.com. Similar programs exist in European, Middle Eastern, African, Asia-Pacific, and the South American regions.

5.   Notes and Cautions

5.1   Cautions

- DIMM devices with gold contacts should NOT be placed into DIMM sockets with tin-lead contacts and vice-versa. Mixing dissimilar metal contact types results in unreliable memory operation.

- Intel recommends using DIMMs from the same manufacturer and with similar speeds in each bank on the memory module. Mixing of DIMMs from different memory manufacturers or with dissimilar memory device speeds is not recommended.

5.2   Important Notes

- This document contains information that is the proprietary property of Intel Corporation. Nothing in this document constitutes a guaranty, warranty, or license, express or implied.

- Intel has tested the DIMMs listed in this document for minimum electrical and functional compatibility with the noted Intel® RAID Controller(s). This listing is not all inclusive; it only represents the DIMMs that Intel or CMTL has tested. Users should check with the DIMM manufacturer or distributor to ensure that a particular DIMM model is adequate for the intended purpose on the Intel® RAID Controller.

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