



Intel® Server RAID Controller SRCU42X Memory List

Test Report Summary

Revision 4.1

January 2007

Revision History

Date	Rev	Modifications
Mar 2004	0.5	Initial pre-launch release & review.
Apr 2004	1.0	Corrected 256MB part number, updated vendor contact information.
Oct 2004	2.0	Added Infineon parts
Oct 2004	2.1	Added Kingston parts
Mar 2005	2.2	Added Buffalo parts
Jun 2005	3.0	Corrected supported memory specification. Added Micron parts
Nov 2006	4.0	Added Kingston parts and Lead-Free DIMM
Jan 2007	4.1	Updated 128MB part number

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The Intel® Server RAID Controller SRCU42X may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

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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 or vice-versa. Mixing dissimilar metal contact types results in unreliable memory operation.

The following procedure qualifies Dual In-Line Memory Modules (DIMMs) with the Intel® Server RAID Controller SRCU42X. 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 by in Intel labs and/or external test laboratories.

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

- **Paper qualification:** A review of critical timings, electrical characteristics, timing requirements, environmental requirements, and packaging requirements. This qualification ensures the DIMM meets Intel's memory specifications.
- **Standard voltage and room temperature functional test:** Testing the memory module on the target RAID controller test software operating under Microsoft Windows* for at least 24 hours.
- **Voltage and temperature margin functional test:** Testing the memory module on the RAID controller product with test software 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 was utilized during the test procedure.

2. Qualified DDR SDRAM DIMMs

The Intel® Server RAID Controller SRCU42X is a two-channel SCSI RAID controller for high-performance / high-security server applications. It supports RAID 0, 1, 5, 10, and 50 array drives and private / pool hot-fix drives. It includes an on-board Intel® IOP80321 Intelligent I/O Processor (400 MHz) XOR-engine and an on-board LSI* 1030 dual-channel SCSI I/O controller that provides Ultra320 capability. The controller supports standard DDR200 (PC1600), standard DDR333 (PC2700) and standard DDR400 (PC3200) compatible unbuffered ECC DIMMs. The controller is PCI 2.2 compliant and includes a BIOS (X-ROM) firmware tool for array configuration and management.

The controller utilizes DDR PC1600 unbuffered SDRAM memory modules for caching and is compatible with memory modules that meet these specifications:

- 184-pin gold-plated SDRAM DIMMs
- Unbuffered PC1600 ECC SDRAM Memory Modules
- 128 MB, 256 MB, and 512 MB capacities
- 2.5 V memory only
- Single rank DIMMs

The controller utilizes DDR PC2700 SDRAM unbuffered memory modules for caching and is compatible with memory modules that meet these specifications:

- 184-pin gold-plated SDRAM DIMMs
- Unbuffered PC2700 ECC SDRAM Memory Modules
- 128 MB, 256 MB, and 512MB capacities
- 2.5 V memory only
- Single rank DIMMs

The controller utilizes DDR PC3200 unbuffered SDRAM memory modules for caching and is compatible with memory modules that meet these specifications:

- 184-pin gold-plated SDRAM DIMMs
- Unbuffered PC3200 ECC SDRAM Memory Modules
- 128 MB, 256 MB, and 512 MB capacities
- 2.6 V memory only
- Single rank DIMMs

The following tables list DIMM devices tested to be compatible with the Intel Server RAID Controller SRCU42X. This document will be updated when additional DIMMs are qualified memory during the life of the Server RAID Controller SRCU42X.

Only memory modules that are listed in the following tables have been tested for compatibility with the RAID Controller SRCU42X. 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 Unbuffered ECC DDR SDRAM DIMMs, 128 MB

Manufacturer	Part Number	Lead Free
AVED	AMP371D1713BT2-CA2	
PNY	69001642INA	
PNY	69001642INC	
PNY	69001649SMF	
Southland Micro	128SDU200E2-Z5-LSI	
Southland Micro	128SDU200E2-H5-LSI-E	
Southland Micro	128MBSUD200E2-C5LSI-A	
Virtium	VM381L1713EB3SD	
Micron	MT5VDDT1672AG-40BF3	
Southland Micro	128S-UD333E2-A6LSIKR	Yes
Virtium	VL381L1624DB3SF	Yes
Virtium	VL381L1624CB3SH	Yes

2.2 Unbuffered ECC DDR SDRAM DIMMs, 256 MB

Manufacturer	Part Number	Lead Free
ATP	AG32L72T8SQB3S	
Qimonda (Infineon)	HYS72D32300Hu6-C	
Kingston	KVR266X72C25	
Micron	MT9VDDT3272AG-335G4	
Micron	MT9VDDT3272AG-265G4	
Micron	MT9VDDT3272AG-40BG4	
PNY	69001679SMF	

2.3 Unbuffered ECC DDR SDRAM DIMMs, 512 MB

Manufacturer	Part Number	Lead Free
ATP	AG64L72T8SQB3S	
Buffalo	DD333-E512/MG	
Micron	MT9VDDT6472AG-335D1	
Kingston	KVR400X72C3A/512	
Qimonda (Infineon)	HYS72D64320Hu6-C	

3. Sales Information

Vendor Name	Web URL	Vendor Direct Sales Info
ATP Electronics, Inc	http://www.atpusa.com	Florence Hsieh Telephone 408-732-5831 Fax 408-732-5055 sales@atpusa.com
ATP Electronics, Inc Taiwan	http://www.atpusa.com	Patty Kuo Telephone 011-886-2-2659-6368 Fax 886-2-2659-4982
AVED Memory Products	http://www.avedmemory.com/	714-573-5000
PNY Technologies	http://www.pny.com/	sales@avedmemory.com 1-714-573-5000
Southland Micro	http://www.southlandmicro.com/	1-800-255-4200
Virtium	http://www.virtium.com/	1-888-VIRTIUM (888-847-8486) ext. 120
Kingston	http://www.kingston.com/	USA: 877-435-8726 Asia: 886-3-564-1539 Europe: +44-1932-755205
Buffalo	http://www.buffalotech.com/	USA: 1-512-794-8533 PRC: 86-21-5298-9153 Taiwan: 852-2793-0368 UK: 44-1753-555-000
Micron	http://www.micron.com/	Telephone: 1-208-368-3900 Fax: 208-368-4617
Qimonda (Infineon)	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

Cautions

- DIMM devices with gold contacts should NOT be placed into DIMM sockets with tin-lead contacts or vice-versa. Mixing dissimilar metal contact types results in unreliable memory operation.
- Intel recommends similar manufacturer and similar speeds in each bank on the memory module. Mixing of dissimilar memory manufacturer devices or dissimilar memory device speeds is not recommended.

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® Server 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® Server RAID Controller.
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