# Intel® Server RAID Controller SRCU42E Memory List Test Report Summary



Revision History		
Date	Rev	Modifications
October 2004	1.0	Initial release.
December 2004	1.1	Internal Use Only
January 2004	1.2	Correct DIMM pin count error
February 2005	1.3	Remove Vertium modules and update 128MB PNY module number.

INTEL DISCLAIMS ALL LIABILITY FOR THESE DEVICES, INCLUDING LIABILITY FOR INFRINGEMENT OF ANY PROPRIETARY RIGHTS RELATING TO THESE DEVICES OR THE IMPLEMENTATION OF INFORMATION IN THIS DOCUMENT. INTEL DOES NOT WARRANT OR REPRESENT THAT SUCH DEVICES OR IMPLEMENTATION WILL NOT INFRINGE SUCH RIGHTS. INTEL IS NOT OBLIGATED TO PROVIDE ANY SUPPORT, INSTALLATION, OR OTHER ASSISTANCE WITH REGARD TO THESE DEVICES.

THE INTEL PRODUCT REFERRED TO IN THIS DOCUMENT IS INTENDED FOR STANDARD COMMERCIAL USE ONLY. CUSTOMERS ARE SOLELY RESPONSIBLE FOR ASSESSING THE SUITABILITY OF THE PRODUCT AND/OR DEVICES FOR USE IN PARTICULAR APPLICATIONS. THE REFERENCED INTEL PRODUCT IS NOT INTENDED FOR USE IN CRITICAL CONTROL OR SAFETY SYSTEMS OR IN NUCLEAR FACILITY APPLICATIONS.

Information in this document is provided in connection with Intel products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by the sale of Intel products. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications. Intel retains the right to make changes to its test specifications and memory list at any time, without notice.

The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty. Only approved software drivers and accessories that are recommended for the revision number of the boards and system being operated should be used with Intel products. Please note that, as a result of warranty repairs or replacements, alternate software and firmware versions may be required for proper operation of the equipment.

The Intel® Server RAID Controller SRCU42E 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.

Copyright © Intel Corporation 2005.

\* Other brands and names are the property of their respective owners.

**Please Note:** DIMM devices with gold contacts should NOT be placed into DIMM sockets with tin-lead contacts or vice-versa. Mixing dissimilar metal contact types has been shown to result in unreliable memory operation.

# **Table of Contents**

OVERVIEW OF MEMORY TESTING	5
UNBUFFERED, ECC DDR SDRAM DIMM MODULES 128MB Sizes	6
UNBUFFERED ECC DDR SDRAM DIMM MODULES 256MB Sizes	
UNBUFFERED ECC DDR SDRAM DIMM MODULES 512MB Sizes	
SALES INFORMATION	
INTEL® PRODUCT DEALERS AND PRODUCT INTEGRATORS	7

### **Overview of Memory Testing**

The following procedure is used to qualify Dual In-Line Memory Modules (DIMMs) for use with the Intel® Server RAID Controller. Intel requires strict guidelines to be met before a DIMM vendor is put onto 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 may also be performed by external test laboratories.

Intel's RAID Controller qualified memory lists categorize memory modules as Advanced Tested. The Advanced Testing process involves a paper qualification, a standard voltage and room temperature functional test, and a voltage and temperature margin functional test. A paper qualification is a review of critical timings, electrical characteristics, timing requirements, environmental requirements, and packaging requirements in order to see if the DIMM meets Intel's memory specifications. The standard voltage and room temperature test involves testing the memory module on the target RAID controller test software operating under Microsoft\* Windows for no less than 24 hours. The voltage and temperature margin testing involves testing the memory module on the RAID Controller product with various test software and operating systems for 24 hours under 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.

### Qualified DDR SDRAM DIMM Memory for the Server RAID Controller SRCU42E

- The Intel(R) RAID Controller SRCU42E is a two channel SCSI RAID controller for high performance/high security server applications. It supports RAID 0/1/5/10/50 Array Drives and Private/Pool Hot Fix Drives. It includes an on-board Intel IOP80332 Intelligent I/O Processor (500MHz) XOR-Engine. The controller also includes an on-board LSI 1030 dual channel SCSI I/O controller that provides Ultra 320 capability. Standard DDR 333 (PC2700) compatible unbuffered ECC DIMMS are supported. The controller is PCI Express compliant and includes a BIOS (X-ROM) firmware tool for array configuration and management.
- Three year limited Warranty

The controller utilizes DDR PC2700 SDRAM unbuffered memory modules for caching and is compatible with memory modules meeting the following specifications:

- 184-pin gold-plated SDRAM DIMMs
- Unbuffered PC2700 ECC SDRAM Memory Modules
- 128MB, 256MB, and 512MB capacities
- 3.3v memory only
- Single or double row DIMMs

The following tables list DIMM devices tested to be compatible with the Intel® Server RAID Controller. This document and the DIMM list will be updated as qualified memory is added during the life of the Intel® Server RAID Controller product.

Memory modules not listed in the following tables have not been tested for compatibility and their use with the SRCU42E may result in unpredictable operation and data loss.

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

## Server RAID Controller SRCU42E

### Unbuffered, ECC DDR SDRAM DIMM Modules 128MB Sizes

Manufacturer	Part Number
Intel Corporation	AXXRPCM1
PNY	69001636SMF
PNY	69001642INC

### Server RAID Controller SRCU42E

# Unbuffered ECC DDR SDRAM DIMM Modules 256MB Sizes

Manufacturer	Part Number
PNY	69001679SMF

## Server RAID Controller SRCU42E

# Unbuffered ECC DDR SDRAM DIMM Modules 512MB Sizes

Manufacturer	Part Number
None Presently Qualified	

### Sales Information

Vendor Name	Web URL	Vendor Direct Sales Info
PNY Technologies	http://www.pny.com/home/products/memoryn	sales@avedmemory.com
_	ow_index.cfm	1-714-573-5000

#### **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 <a href="http://channel.intel.com">http://channel.intel.com</a>. Similar programs exist in European, Middle Eastern, African, Asia-Pacific and South American regions.

#### **IMPORTANT NOTE**

DIMM devices with gold contacts should NOT be placed into DIMM sockets with tin-lead contacts or vice-versa. Mixing dissimilar metal contact types has been shown to result 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 This document contains information which is the proprietary property of Intel recommended. Corporation. Nothing in this document constitutes a guaranty, warranty, or license, express or implied. Intel has tested the following DIMMs for minimum electrical and functional compatibility with the Intel® Server RAID Controller. This listing is not intended to be all inclusive; it only represents the DIMMs Intel or CMTL has tested. Users of this list are reminded to 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. Intel provides no indemnities for and expressly disclaims all liabilities for any and all such quaranties, representations, and warranties (oral or written) whether express or implied, related to DIMMs in a Intel® Server RAID Controller product, including without limitation to: fitness for a particular purpose; merchantability; non-infringement of intellectual property or other rights of any third party or of Intel. The reader is advised that third parties may have intellectual property rights which may be relevant to this document and the technologies discussed herein, and is advised to seek the advice of competent legal counsel, without obligation of Intel. Intel retains the right to make changes to this document at any time, without notice. Intel makes no warranty or representation with respect to the use of this document or reliance by the reader upon its contents, and assumes no responsibility for any errors which may appear in the document nor does it make a commitment to update the information contained herein.

\*Product and corporate names listed in this document may be trademarks of their respective companies.