

# **Intel® Storage Server SSR212MC2 Tested Memory List**

Revision 1.0  
April, 2007

## Revision History

Date	Rev	Modifications
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***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. Intel recommends similar manufacturer and similar speeds in each Rank on the memory module. Mixing of dissimilar memory is NOT recommended.***

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## 1. Overview of Memory Testing

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The following test processes are used to qualify Dual In-Line Memory Modules (DIMMs) for use with the Intel® Storage Server SSR212MC2. Memory is a vital subsystem in a storage server. Intel requires that strict guidelines be met before a DIMM vendor is added to the Tested Memory Report. To be included on the list as a fully supported DIMM, the memory must undergo rigorous tests to ensure that the product will perform the intended server product functions. Memory qualification for Intel server, workstation and RAID controller products is performed both by Intel's Memory Validation Lab (MVL) and by an independent external test lab, Computer Memory Test Lab\* (CMTL).

The Tested Memory Lists for Intel's server boards categorize memory modules as Advanced Tested. The Advanced Testing process includes a standard paper qualification and then is followed by two levels of functional testing. DIMMs that have completed and passed Advanced Testing are considered to be compatible with the product on which they were tested, and with the test software and operating systems that was used during the test process.

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**Note:** Memory qualification for main memory is done by testing identical memory modules in all DIMM slots. Memory qualification does not include testing of mixed DIMM type and/or vendors. Mixing of DIMM type and/or vendors is not recommended.

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### 1.1 Paper Qualification

A paper qualification is performed to verify that the specifications of a given DIMM meet Intel's memory specifications for a given product. Specification criteria reviewed include: critical timings, electrical characteristics, timing requirements, environmental requirements, and packaging requirements.

### 1.2 Functional Testing

After a given DIMM passes the standard paper qualification, functionality of the DIMM is then tested with the intended Intel product. Two levels of functional testing is performed; Standard and Advanced.

Standard functional testing requires that the given DIMM and Intel product combination operate with no failures for a period of no less than 24 hours for both minimum and maximum DIMM configurations. Testing is performed using a Microsoft Windows\* operating system and a custom test package. The test systems operate with standard voltage and at room temperature.

### 1.3 Advanced functional testing

Advanced functional testing requires that the given DIMM and Intel product combination operate with no failures for a period of no less than 24 hours for both minimum and maximum DIMM configurations. Testing is performed with multiple operating systems and various custom test packages. Each test configuration is tested with various voltage and temperature margin conditions.

## 1.4 Computer Memory Test Lab\*

Computer Memory Test Lab, also known as “CMTL\*” is a leading memory test organization responsible for testing a broad range of memory products. A memory product, which receives a “PASS” after being tested by CMTL, means it functions correctly and consumers can use the product to perform the intended server functions. In order to pass these stringent standards, memory products must maintain the highest manufacturing procedures and pass an exacting battery of tests. Testing is performed with Intel supplied equipment and procedures defined by Intel’s various functional testing levels.

### **CMTL\* Contact Information:**

Office: (949) 716-8690

Main Fax: (949) 716-8691

Computer Memory Test Lab (CMTL)

24 Hammond Suite F

Irvine, CA 92618

<http://www.cmtlabs.com/>

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## 2. Intel® Storage Server SSR212MC2 Memory Sub-system

The Intel® Storage Server SSR212MC2 main memory subsystem was designed to support Fully Buffered Dual In-line (FBD) Registered DDR2-533 and DDR2-667 FBDIMM memory ECC Synchronous Dynamic Random Access Memory (SDRAM). Other industry naming conventions for DDR2-533 include PC2-4200 and DDR2-667 include PC2-5300.

The maximum main memory capacity supported is based on the number of DIMM slots provided and maximum supported memory loads by the chipset. On the Intel® Server Board S5000PSL (implemented in the Intel® Storage Server SSR212MC2) the maximum supported capacity is 32GB, the minimum supported capacity is 512MB with one single 512MB DIMM.

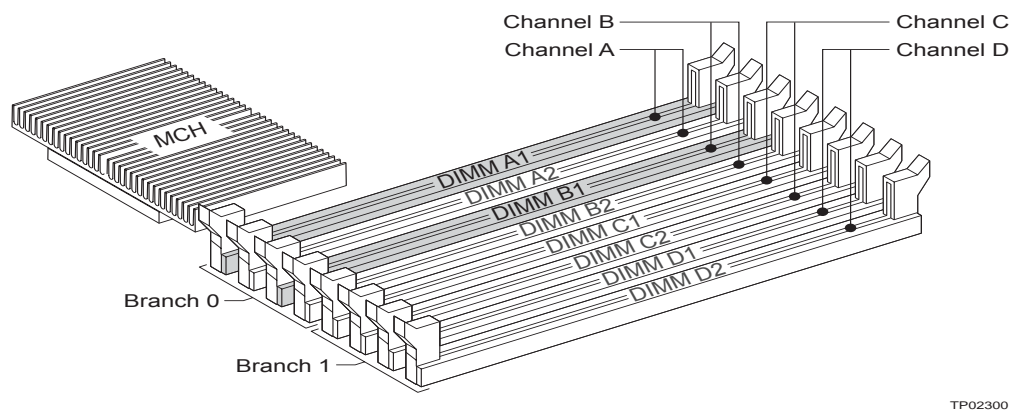
Supported FBDIMM capacities for main memory include: 512MB, 1GB, 2GB, and 4GB.

### 2.1 Main Memory Population

The Intel® Server Board S5000PSL has eight DIMM slots grouped into four DIMM channels for main memory. DIMMs within each bank should be identical (same manufacturer, CAS latency, number of rows, columns and devices, timing parameters etc.). Although DIMMs within a bank must be identical, the BIOS supports various DIMM sizes and configurations allowing memory between banks to be different. Memory sizing and configuration is guaranteed only for qualified DIMMs approved by Intel.

DIMM population rules depend on the operating mode of the memory controller, which is determined by the number of DIMMs installed. DIMMs must be populated in pairs. DIMM pairs are populated in the following DIMM slot order: A1 & B1, C1 & D1, A2 & B2, C2 & D2. DIMMs within a given pair must be identical with respect to size, speed, and organization. However, DIMM capacities can be different between different DIMM pairs.

For example, a valid mixed DIMM configuration may have 512MB DIMMs installed in DIMM Slots A1 & B1, and 1GB DIMMs installed in DIMM slots C1 & D1.



**Figure 1. Identifying Banks of Memory**

#### 2.1.1 Memory Sub-system

The MCH masters four fully buffered DIMM (FBD) memory channels. FBD memory utilizes a narrow high speed frame oriented interface referred to as a channel. The four FBD channels are organized into two branches of two channels per branch. Each branch is supported by a separate memory controller. The two channels on each branch operate in lock step to increase FBD bandwidth. On the server board, the four channels are routed to eight DIMM slots and are capable of supporting registered DDR2-533 and

DDR2-667 FBDIMM memory (stacked or unstacked). Peak theoretical memory data bandwidth is 6.4GB/s with DDR2-533 and 8.0GB/s with DDR2-667.

On the Intel® Storage Server SSR212MC2, a pair of channels becomes a branch where Branch 0 consists of channels A and B, and Branch 1 consists of channels C and D. FBD memory channels are organized into two branches for support of RAID 1(mirroring).

The server board supports up to eight DDR2-533 or DDR2-667 Fully Buffered DIMMs (FBD memory). The following tables show the maximum memory configurations supported using the specified memory technology.

***Maximum 8 DIMM System Memory Configuration – x8 Single Rank***

<b>DRAM Technology x8 Single Rank</b>	<b>Maximum Capacity Mirrored Mode</b>	<b>Maximum Capacity Non-Mirrored Mode</b>
256 Mb	1 GB	2 GB
512 Mb	2 GB	4 GB
1024 Mb	4 GB	8 GB
2048 Mb	8 GB	16 GB

***Maximum 8 DIMM System Memory Configuration – x4 Dual Rank***

<b>DRAM Technology x4 Dual Rank</b>	<b>Maximum Capacity Mirrored Mode</b>	<b>Maximum Capacity Non-Mirrored Mode</b>
256 Mb	4 GB	8 GB
512 Mb	8 GB	16 GB
1024 Mb	16 GB	32 GB
2048 Mb	16 GB	32 GB

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**Note:** DDR2 DIMMs that are not fully buffered are NOT supported on the Intel® Storage Server SSR212MC2 .

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The following table lists the current supported memory types:

<b>FBDIMM-533 CL4 &amp; FBDIMM-667 CL5 Memory Matrix</b>						
<b>DIMM Capacity</b>	<b>DIMM Organization</b>	<b>SDRAM Density</b>	<b>SDRAM Organization</b>	<b># SDRAM Devices/rows/Ranks</b>	<b># Address bits rows/Ranks/column</b>	<b>Ranked</b>
256MB	32M x72	256Mbit	64M x 4		13/11/2	
256MB	32M x72	256Mbit	32M x 8		13/10/2	
512MB	64M x72	256Mbit	128M x 4		13/12/2	
512MB	64M x72	256Mbit	64M x 8		13/11/2	
512MB	64M x72	512Mbit	128M x 4		14/11/2h	
512MB	64M x72	512Mbit	64M x 8		14/10/2	
1GB	128M x 72	512Mbit	256M x 4		14/12/2	
1GB	128M x 72	512Mbit	128M x 8		14/11/2	
1GB	128M x 72		256M x 4		14/11/3	
1GB	128M x 72		128M x 8		14/10/3	
2GB	256M x72		512M x 4		15/11/3	
2GB	256M x72		256M x 8			
4GB						

### **3. Intel® Storage Server SSR212MC2 Main Memory Tested**

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The following tables list DIMM devices tested to be compatible with the Intel® Storage Server SSR212MC2. The list of tested memory is periodically updated as qualified memory is added during the production life of the Intel product.

Memory modules not listed in the following tables have not been tested for compatibility and their use with the Intel® Storage Server SSR212MC2 may result in unpredictable operation and data loss.

**Caution:** Third party memory vendors may use the same module part number with different DRAM vendors and die revisions. To insure proper system operation, verify that each DRAM vendor and die revision has been separately tested and qualified. Please notify CMTL if there is a discrepancy. This list is subject to change without notice.

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**Note:** This list is not intended to 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.

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## Intel® SSR212MC2 Storage System, Server Board S5000PSL

**Fully Buffered ECC, DDR2-533 DIMM Modules**  
**512 MB Sizes (64Mx72)**

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Samsung	M395T6553CZ4-CD51	K4T51083QC-ZCD5	Samsung		IDT 1.5	AMB048 0A5RJ A1.5			x8	6/1/06
Hynix	HYMP564F72BP8D2-C4	HY5PS12821BFP-C4	Hynix		IDT 1.5	AMB048 0A5RJ			x8	6/15/06
Crucial Technology	CT9HTF6472FY53EB4E3.01	MT47H64M8CB-37E rev B	Micron	0499 rev B					x8	7/5/06
Kingston	KVR533D2S8F4/512I	E5108AE-5C-E rev E	Elpida	2025285-002.A00 na					x8	6/30/06
Ramaxel Technology	00124025	EDE5108AGSE-5C-E rev G	Elpida	11113004 (RPP1091 0812J61) rev B						7/27/06
Smart Modular Technologies	SG647FBD64843-IAI	HYB18T512800AF37 rev A	Qimonda (Infineon)	240-21-4 na						8/8/06
Legacy Electronics Inc.	B557K4C90AE-37R	K4T51083QC-ZCD5 rev C	Samsung	D2F18A na				(64Mx8)*9		8/15/06
Kingston	KVR533D2S8F4/512I	E5108AGBG-5C-E rev G	Elpida	2025285-002.A00 na				(64Mx8)*9		9/7/06
Smart Modular Technologies	TD647FBD64843SCI	K4T51083QC-ZCD5 rev C	Samsung	PG54G24 0NFBUB3 RA rev A				(64Mx8)*9		9/11/06
Smart Modular Technologies	TD647FBD64843IAI	HYB18T512800AF37 rev A	Qimonda (Infineon)	PG54G24 0NFBUB3 RA rev A				(64Mx8)*9		9/12/06
Apacer	78.9DG96.404	K4T51083QC-ZCD5 rev C	Samsung	48.16203. 014 rev 4				(64Mx8)*9		11/9/06
Kingston	KVR533D2S8F4/512I (INT/INF)	HYB18T512800AF-3.7-A	Kingston		Intel	GB-C0	FDHS	(64Mx8)*9		6/13/06
Hynix	HYMP564F72BP8N2-C4	HY5PS12821BFP-C4	Hynix		Intel	GB C0	FDHS	(64Mx8)*9		12/13/06
Qimonda	HYS72T64400HFN-3.7-A	HYB18T512800AF	Qimonda		Intel	GB-C0	FDHS	(64Mx8)*9		12/13/06
Qimonda	HYS72T64400HFN-3.7-B	HYB18T512800AF	Qimonda		Intel	D1	FDHS	(64Mx8)*9		12/13/06
Hynix	HYMP564F72BP8D2-C4	HY5PS12821BFP-C4	Hynix		IDT	1.5	FDHS	(64Mx8)*9	1	1/24/07
Qimonda	HYS72T64400HFD-3.7-B	HYB18T512800AF	Qimonda		IDT	1.5	FDHS	(64Mx8)*9	1	1/29/07

**Fully Buffered ECC, DDR2-667 DIMM Modules  
512 MB Sizes (64Mx72)**

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Hynix	HYMP564F72 BP8N2-Y5	HY5PS12821BFP- Y5	Hynix		Intel			(64Mx8)*9		7/13/06
Dataram	DTM65506A	NT5TU64M8AE-3C rev A	Nanya	40053A rev B				(64Mx8)*9		7/18/06
Qimonda (Infineon)	HYS72T64400 HFN-3S-A	HYB18T512800AF	Qimonda (Infineon)		Intel					8/2/06
Samsung	M395T6553CZ 4-CE61	K4T51083QC	Samsung		IDT					8/2/06
Samsung	M395T6553CZ 4-CE60	K4T51083QC	Samsung		Intel					8/15/06
Smart Modular Technologies	SG647FBD64 8521AD5	HYB18T512800AF 3S rev A	Qimonda (Infineon)	PG54G24 0NFUB3 RA rev A				(64Mx8)*9		8/12/06
ATP Electronics	AP64K72A8B HE6S	K4T51083QC- ZCE6 rev C	Samsung	SP240A0 8K1 na				(64Mx8)*9		8/15/06
ATP Electronics	AP64K72A8B HE6S	K4T51083QC- ZCE6 rev C	Samsung	SP240A0 8K1 na				(64Mx8)*9		8/25/06
Kingston	KVR667D2S8 F5/512I	E5108AGBG-6E-E rev G	Elpida	2025285- 002.A00 na				(64Mx8)*9		9/14/06
Wintec Industries	39C925284C	K4T51083QC- ZCE6 rev C	Samsung	D2F18A rev A				(64Mx8)*9		10/12/06
Apacer	78.9DG99.404	K4T51083QC- ZCE6 rev C	Samsung	48.16203. 014 rev 4				(64Mx8)*9		10/25/06
Kingston	KVR667D2S8 F5/512I	E5108AGBG-6E-E rev G	Elpida	2025285- 002.A00 na				(64Mx8)*9		12/11/06
Micron	MT9HTF6472 FY-667B4E3	MT47H64M8CB-3	Micron		Intel	GB C0	FDHS	(64Mx8)*9		8/24/06
Hynix	HYMP564F72 BP8D2-Y5	HY5PS12821BFP- Y5	Hynix		IDT	1.5	FDHS	(64Mx8)*9		11/10/06
Qimonda	HYS72T64400 HFA-3S-B	HYB18T512800AF	Qimonda		Qimonda	C1	FDHS	(64Mx8)*9		12/13/06
Samsung	M395T6553EZ 4-CE65	K4T51083QE	Samsung		Intel	GB D1	FDHS	(64Mx8)*9	1	1/29/07
ATP Electronics	AP64K72A8B HE6S	K4T51083QE- ZCE6 rev E	Samsung	D2F18A na				(64Mx8)*9	1	1/24/07
Dataram	DTM65506C	HY5PS12821CFP- Y5 rev C	Hynix	40053A rev B				(64Mx8)*9	1	1/26/07
Legacy Electronics Inc.	N557K4C90A N-30R	EDE5108AHBG- 6E-E rev H	Elpida	D2F18A				(64Mx8)*9	1	1/18/07
Legacy Electronics Inc.	B557K4C90A N-30R	K4T51083QC- ZCE6 rev C	Samsung	D2F18A rev A				(64Mx8)*9	1	1/17/07
Legacy Electronics Inc.	N557K4C90A E-30R	E5108AHBG-6E-E rev H	Elpida	D2F18A rev A				(64Mx8)*9	1	1/21/07
Legacy Electronics Inc.	B557K4C90AE -30R	K4T51083QC- ZCE6 rev C	Samsung	D2F18A rev A				(64Mx8)*9	1	1/24/07
Viking	VR5EF647218 EBWL1	HYB18T512800BF 3S rev B	Qimonda	D2F18A				(64Mx8)*9	1	1/15/07

<b>Fully Buffered ECC, DDR2-667 DIMM Modules 512 MB Sizes (64Mx72)</b>										
<b>Manufacturer</b>	<b>Part Number</b>	<b>DRAM Part Number</b>	<b>DRAM Vendor</b>	<b>PCB Part Number</b>	<b>AMB Vendor</b>	<b>AMB Revision</b>	<b>Heat-sink Vendor</b>	<b>DRAM Organization</b>	<b>Rank</b>	<b>Date</b>
Dataram	DTM65506C	HY5PS12821CFP-Y5 rev C	Hynix	40053A rev B	INTEL	D1	Foxconn	(64Mx8)*9	1	1/26/07
Micron	MT9HTF6472 FY-667D5E4	MT47H64M8-3	Micron		Intel	GB-D1	FDHS	(64Mx8)*9	1	2/5/07
Qimonda	HYS72T64400 HFN-3S-B	HYB18T512800AF-3S-B	Qimonda		Intel	D1	FDHS	(64Mx8)*9	1	2/9/07
Qimonda	HYS72T64400 HFD-3S-B	HYB18T512800AF-3S-B	Qimonda		IDT	C1	FDHS	(64Mx8)*9	1	2/13/07

(+) This vendor is part of the CMTL Certification program. This means this part has/will be tested across all compatible Intel Server Boards. For further information contact CMTL @ <http://cmtlabs.com/>

## Intel® SSR212MC2 Storage System, Server Board S5000PSL

### Fully Buffered ECC, DDR2-533 DIMM Modules

#### 1 GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Samsung*	M395T2953CZ4-CD51	K4T51083QC-ZCD5	Samsung		IDT	AMB048 0A5RJ A1.5		(64Mx8)*18	X8	5/18/06
Kingston*	KVR533D2D8F4 /1GI	HYB18T512800 AF-3.7	Qimonda (Infineon)		IDT	AMB048 0A5RJ A1.5			X8	5/26/06
Kingston	KVR533D2D8F4 /1GI	HYB18T512800 AF-3.7	Qimonda (Infineon)		Intel	QG6400 C0			X8	5/26/06
Hynix*	HYMP512F72B P8D2-C4	HY5PS12821B FP-C4	Hynix		IDT	AMB048 0A5RJ A1.5			X8	6/1/06
Micron	MT18HTF12872 FDY-53EB5E3	MT47H64M8CB -37E	Micron		Intel	QG6400 C0			X8	6/1/06
Hynix	HYMP512F72B P8N2-C4	HY5PS12821B FP-C4	Hynix		Intel	QG6400 C0			X8	6/15/06
A-Data Technology	EDE5108AGSE-5C-E rev G	M2OEL2G3IBC 4211B5Z	Elpida		Intel QG6400	SL96G	Foxconn	128M x 72	x 8	6/22/2006
ATP Electronics	K4T51083QC-ZCD5 rev C	AP28K72S8BH D5S	Samsung		IDT 0480A5RJ	Y0604D	Foxconn	128M x 72	x 8	6/22/2006
Kingston	E5108AE-5C-E rev EI	KVR533D2D8F4 /1GI	Elpida		Intel QG6400	SL96G	Foxconn	128M x 72	x 8	6/22/2006
A-Data Technology	M2OEL2G3IBC4 211B5Z	EDE5108AGSE -5C-E rev G	Elpida	B62FRCB na					x 8	6/21/06
ATP Electronics	AP28K72S8BHD 5S	K4T51083QC-ZCD5 rev C	Samsung	SP240S0 8K1 na					x 8	6/20/06
Crucial Technology	CT18HTF12872 FDY53EB5E3.0 1	MT47H64M8CB -37E rev B	Micron	500 rev C					x 8	7/10/06
Kingston	KVR533D2D8F4 /1GI	E5108AE-5C-E rev E	Elpida	2025286-002.A00 na					x 8	6/15/06
Smart Modular Technologies	SG1287FBD648 43SCI	K4T51083QC-ZCD5 rev C	Samsung	PG58G24 0NFBUB3 RB rev B				(64Mx8)*18		7/12/06
Smart Modular Technologies	TD1287FBD648 43SCI	K4T51083QC-ZCD5 rev C	Samsung	PG58G24 0NFBUB3 RBS rev B				(64Mx8)*18		7/17/06
Smart Modular Technologies	TD1287FBD648 43IAI	HYB18T512800 AF37 rev A	Qimonda (Infineon)	PG58G24 0NFBUB3 RBS rev B				(64Mx8)*18		7/18/06
Kingston	KVR533D2D8F4 /1GI	E5108AG-5C-E rev G	Elpida	2025286-002.A00 na				(64Mx8)*18		7/20/06
Kingston	KVR533D2D8F4 /1GI (INT/INF)	HYB18T512800 AF-3.7-A	Kingston		Intel			(64Mx8)*18		8/2/06
Smart Modular Technologies	SG1287FBD648 43NAI	NT5TU64M8AE -3C rev A	Nanya	PG58G24 0NFBUB3 RB rev C				(64Mx8)*18		7/23/06
Smart Modular Technologies	SG1287FBD648 43-IAI	HYB18T512800 AF37 rev A	Qimonda (Infineon)	240-22-5 na				(64Mx8)*18		8/8/06

**Intel® SSR212MC2 Storage System, Server Board S5000PSL**  
**Fully Buffered ECC, DDR2-533 DIMM Modules**  
**1 GB Sizes (128Mx72)**

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Kingston	KVR533D2D8F4 /1GI	E5108AGBG-5C-E rev G	Elpida	2025286-002.A00 na				(64Mx8)*18		8/14/06
Apacer	78.0DG96.405	K4T51083QC-ZCD5 rev C	Samsung	48.16203.015 rev 5				(64Mx8)*18		11/9/06
Kingston	KVR533D2D8F4 /1GI	E5108AGBG-6E-E rev G	Elpida	2025286-002.A00 na				(64Mx8)*18		11/13/06
Micron	MT18HTF12872 FDY-53EB5D3	MT47H64M8B6 -37E	Micron		IDT	1.5	FDHS	(64Mx8)*18		11/10/06
Kingston	KVR533D2D8F4 /1GI	E5108AGBG-6E-E rev G	Elpida	2025286-002.A00 na	Intel	D1	Foxconn	(64Mx8)*18	2	2/3/07
Qimonda	HYS72T128420 HFD-3.7-B	HYB18T512800 AF	Qimonda		IDT	1.5	FDHS	(64Mx8)*18	2	2/13/07
Qimonda	HYS72T128420 HFN-3.7-B	HYB18T512800 AF-3.7-B	Qimonda		Intel	D1	FDHS	(64Mx8)*18	2	2/13/07
Samsung	M395T2953CZ4-CD50				Intel	GB-C0	FDHS	(64Mx8)*18	2	2/13/07
Qimonda	HYS72T128420 HFN-3.7-A	HYB18T512800 AF-3.7-A	Qimonda		Intel	GB-C0	FDHS	(64Mx8)*18	2	3/12/07
Qimonda	HYS72T128420 HFA-3.7-B	HYB18T512800 AF-3.7-B	Qimonda		Qimonda	C1	FDHS	(64Mx8)*18	2	3/12/07
Kingston	KVR533D2D8F4 /1GI (INT/INF)	HYB18T512800 AF-3.7-A	Kingston		Intel	GB-C0	FDHS	(64Mx8)*18	2	3/28/07

# Intel® SSR212MC2 Storage System, Server Board S5000PSL

## Fully Buffered ECC, DDR2-677 DIMM Modules

### 1 GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Samsung	M395T2953CZ4-CE60	K4T51083QC	Samsung		Intel			(64Mx8)*18	2	7/13/06
Hynix	HYMP512F72B P8N2-Y5	HY5PS12821B FP-Y5	Hynix		Intel			(64Mx8)*18	2	7/13/06
Dataram	DTM65507A	NT5TU64M8AE-3C rev A	Nanya	40053A rev B						7/20/06
Smart Modular Technologies	SG1287FBD648 52SCD5	K4T51083QC-ZCE6 rev C	Samsung	PG58G24 0NFBUB3 RBS rev B				(64Mx8)*18	2	7/27/06
Smart Modular Technologies	SG1287FBD648 52NAD5	NT5TU64M8AE-3C rev A	Nanya	PG58G24 0NFBUB3 RBS rev B				(64Mx8)*18	2	8/1/06
Smart Modular Technologies	SG1287FBD648 52-IAI	HYB18T512800 AF3S rev A	Qimonda (Infineon)	K0545 na				(64Mx8)*18	2	8/8/06
Nanya	NT1GT72U8PA5 BD-3C	NT5U64M8AE-3C	Nanya		IDT			(64Mx8)*18	2	8/14/06
Samsung	M395T2953CZ4-CE61	K4T51083QC	Samsung		IDT			(64Mx8)*18	2	8/15/06
Smart Modular Technologies	SG1287FBD648 52IAD5	HYB18T512800 AF3S rev A	Qimonda (Infineon)	PG58G24 0NFBUB3 RBS rev B				(64Mx8)*18	2	8/14/06
ATP Electronics	AP28K72S8BHE 6S	K4T51083QC-ZCE6 rev C	Samsung	SP240S0 8K1 na				(64Mx8)*18	2	8/25/06
Kingston	KVR667D2D8F5 /1GI	E5108AG-6E-E rev G	Elpida	2025286-001.F00 na				(64Mx8)*18	2	8/29/06
Kingston	KVR667D2D8F5 /1GI	E5108AGBG-6E-E rev G	Elpida	2025286-002.A00 na				(64Mx8)*18	2	9/14/06
Qimonda (Infineon)	HYS72T128420 HFN-3S-A	HYB18T512800 AF5	Qimonda (Infineon)		Intel	GB C0		(64Mx8)*18	2	9/13/06
Hynix	HYMP512F72B P8D2-Y5	HY5PS12821B FP-Y5	Hynix		IDT	1.5		(64Mx8)*18	2	10/24/06
Wintec Industries	39C935284C	K4T51083QC-ZCE6 rev C	Samsung	D2F28B rev B				(64Mx8)*18	2	10/12/06
Apacer	78.0DG99.405	K4T51083QC-ZCE6 rev C	Samsung	48.16203.015 rev 5				(64Mx8)*18	2	10/16/06
Ventura Technology Group	D2-54VD80LIV-555	EDE-5108AGBG-6E-E rev G	Elpida	D2F28B na				(64Mx8)*18	2	11/11/06
Smart Modular Technologies	SG1287FBD648 52-HBD	HY5PS12821B FP-Y5 rev B	Hynix	KS-11 (0634-5)				(64Mx8)*18	2	11/27/06
Smart Modular Technologies	SG1287FBD648 52-ECD	E5108AG-6E-E rev G	Elpida	BFA1=AM-1 na				(64Mx8)*18	2	11/30/06
Smart Modular Technologies	SG1287FBD648 52-SCI	K4T51083QC-ZCE6 rev C	Samsung	M395T29 53CZ0 na				(64Mx8)*18	2	12/3/06
Super Talent Electronics	T667FB1G(Channel)/S1GTF8A MS(OEM)	K4T51083QC-ZCE6 rev C	Samsung	B62FRCB na				(64Mx8)*18	2	12/6/06
Kingston	KVR667D2D8F5 /1GI	E5108AGBG-6E-E rev G	Elpida	2025286-002.A00 na				(64Mx8)*18	2	12/8/06



# Intel® SSR212MC2 Storage System, Server Board S5000PSL

## Fully Buffered ECC, DDR2-677 DIMM Modules

### 1 GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
A-Data Technology	M2OSS5G3IBB61L1C5Z	K4T51083QE-ZCE6 rev E	Samsung	B62FRCBna				(64Mx8)*18	2	12/14/06
A-Data Technology	M2OSS5G3IBB61L1C5Z	K4T51083QE-ZCE6 rev E	Samsung	B62FRCBna				(64Mx8)*18	2	12/14/06
SimpleTech	ST72F8T128L-A30GU	K4T51083QC-ZCE6 rev C	Samsung	D2F28B				(64Mx8)*18	2	12/16/06
Viking	VR5EF287218E-BWL1	HYB18T512800BF3S rev B	Qimonda (Infineon)	D2F28B				(64Mx8)*18	2	12/23/06
Legacy Electronics Inc.	B517K4C90BE-30R	K4T51083QC-ZCE6 rev C	Samsung	D2F28Bna				(64Mx8)*18	2	1/6/07
Hynix	HYMP512F72C-P8N3-Y5	HY5PS12821C-FP-Y5	Hynix		Intel	GB D1	FDHS	(64Mx8)*18	2	1/16/07
Micron	MT18HTF12872FDY-667D6E4	MT47H64M8-3	Micron		Intel	GB-D1	FDHS	(64Mx8)*18	2	1/29/07
Dataram	DTM65507C	HY5PS12821C-FP-Y5 rev C	Hynix	40053A rev B				(64Mx8)*18	2	1/19/07
Legacy Electronics Inc.	B517K4C90BN-30R	K4T51083QC-ZCE6 rev C	Samsung	D2F28B				(64Mx8)*18	2	1/18/07
Legacy Electronics Inc.	B517K4C90BE-30R	K4T51083QC-ZCE6 rev C	Samsung	D2F28Bna				(64Mx8)*18	2	1/21/07
Legacy Electronics Inc.	N517K4C90BE-30R	E5108AE-6E-E rev E	Elpida	D2F28Bna				(64Mx8)*18	2	1/19/07
S3+	SG26671GBEI	K4T51083QC-ZCE6 rev C	Samsung	B62FRCBna	IDT	A1.5	AVC	(64Mx8)*18	2	2/1/07
Qimonda	HYS72T128420HFA-3S-B	HYB18T512800AF-3S-B	Qimonda		Qimonda	C1	FDHS	(64Mx8)*18	2	2/5/07
Qimonda	HYS72T128420HFN-3S-B	HYB18T512800AF-3S-B	Qimonda		Intel	GB D1	FDHS	(64Mx8)*18	2	2/5/07
Samsung	M395T2953EZ4-CE65	K4T51083QE	Samsung		Intel	GB D1	FDHS	(64Mx8)*18	2	2/5/07
Micron	MT18HTF12872FDY-667D5E3	MT47H64M8B6-3	Micron		Intel	GB C0	FDHS	(64Mx8)*18	2	2/13/07
Micron	MT18HTF12872FDY-667B5E3	MT47H64M8CB-3	Micron		Intel	GB-C0	FDHS	(64Mx8)*18	2	2/13/07
Micron	MT9HTF12872FY-667E1N6	MT47H129M8HQ-3:E	Micron		NEC	B5+	FDHS	(128Mx8)*9	1	2/26/07
Viking	VR5EF287218E-BWL2	HYB18T512800BF3S rev B	Qimonda	D2F28B	NEC	B5+	Foxconn	(64Mx8)*18	2	2/27/07
Netlist, Inc.	NLC127A26407FD5311SC1	K4T51083QC-ZCE6 rev C	Samsung	0296-10A rev A	IDT	C1	Foxconn	(64Mx8)*18	2	3/14/07
Smart Modular Technologies	SG1287FBD64852-HB	HY5PS12821C-FP-Y5 rev C	Hynix	KS-11 (0646-3F)	IDT	A1.5	Hynix	(64Mx8)*18	2	3/14/07
ATP Electronics	AP28K72S8BHE6S	K4T51083QE-ZCE6 rev E	Samsung	SP240S08K1 na	NEC	B5	Foxconn	64M x 8		4/3/07
STEC Inc	INT72W8M128M8M-A03GZU	K4T51083QE-ZCE6 rev E	Samsung	D2F28B	Intel	D1	AVC	64M x 8		4/5/07
Micron	MT9HTF12872FY-667E1E4	MT47H128M8HQ-3:E	Micron		Intel	GB D1	FDHS	(128Mx8)*9	1	4/9/07
Micron	MT9HTF12872FY-667E1D4	MT47H128M8HQ-3:E	Micron		IDT	C1	FDHS	(128Mx8)*9	1	4/9/07

(+) This vendor is part of the CMTL Certification program. This means this part has/will be tested across all compatible Intel Server Boards. For further information contact CMTL @ <http://cmtlabs.com/>



## Intel® SSR212MC2 Storage System, Server Board S5000PSL

### Fully Buffered ECC, DDR2-533 DIMM Modules

### 2 GB Sizes (256Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Kingston	KVR533D2D4F 4/2GI (INT/INF)	HYB18T512400 AF-3.7	Qimonda (Infineon)		Intel	QG6400 C0	FDHS		X4	6/13/06
Samsung	M395T5750CZ 4-CD51	K4T51043QC- ZCD5	Samsung		IDT	AMB048 0A5RJ A1.5			X4	6/1/06
ATP Electronics	K4T51043QC- ZCD5 rev C	AP56K72G4BH D5S	Samsung		IDT 0480A5R J	Y0607D	Foxconn	256M x 72	x 4	6/22/20 06
ATP Electronics	AP56K72G4BH D5S	K4T51043QC- ZCD5 rev C	Samsung	SP240G0 4K1 na					x 4	6/18/06
Smart Modular Technologies	TD2567FBD28 443IAI	HYB18T512400 AF37 rev A	Qimonda (Infineon)	PG54G24 0NFSUB1 RES rev B				(128Mx4)*36		8/17/06
Smart Modular Technologies	SG2567FBD28 443IAI	HYB18T512400 AF37 rev A	Qimonda (Infineon)	PG54G24 0NFSUB1 RES rev B				(128Mx4)*36		8/18/06
Smart Modular Technologies	SG2567FBD28 443IAD5	HYB18T512400 AF37 rev A	Qimonda (Infineon)	PG54G24 0NFSUB1 RES rev B				(128Mx4)*36		9/18/06
Smart Modular Technologies	SG2567FBD28 443SCD5	K4T51043QC- ZCD5 rev C	Samsung	PG54G24 0NFSUB1 RES rev B				(128Mx4)*36		9/19/06
Dataram	DTM65504B	HYB18T512400 AF37 rev A	Qimonda (Infineon)	40060A rev A				(128Mx4)*36		10/2/06
Apacer	78.ADG9G.401	K4T51043QC- ZCD5 rev C	Samsung	48.1A205. 011 rev 1				(128Mx4)*36		11/11/0 6
Ventura Technology Group	D2-56TF82SIV- 444	K4T51043QC- ZCD5 rev C	Samsung	D2F24E na				(128Mx4)*36		12/16/0 6
Qimonda	HYS72T256420 HFN-3.7-A	HYB18T2G402A F-3.7	Qimonda		Intel	GB-C0	FDHS	(128Mx4)*36		1/16/07
Qimonda	HYS72T256420 HFN-3.7-B	HYB18T512800 BF-3.7-B	Qimonda		Intel	GB D1	FDHS	(128Mx4)*36		1/16/07
Hynix	HYMP525F72C P4N3-C4	HY5PS12421CF P-C4	Hynix		Intel	GB D1	FDHS	(128Mx4)*36	2	2/13/07
Kingston	KVR533D2D4F 4/2GI (INT/ELP)	EDE5104AESK- 5C-E	Elpida		Intel	GB C0	FDHS	(128Mx4)*36	2	2/13/07
Qimonda	HYS72T256420 HFD-3.7-A	HYB18T512400 AF-3.7-A	Infineon		IDT	1.5	FDHS	(128Mx4)*36	2	2/13/07
Qimonda	HYS72T256420 HFD-3.7-B	HYB18T512400 AF	Qimonda		IDT	1.5	FDHS	(128Mx4)*36	2	2/13/07
Samsung	M395T5750CZ 4-CD50	K4T51043QC- CZD5	Samsung		Intel	GB-C0	FDHS	(128Mx4)*36	2	2/13/07
Qimonda	HYS72T256420 HFA-3.7-B	HYB18T512400 BF-3.7-B	Qimonda		Qimonda	C1	FDHS	(128Mx4)*36	2	3/12/07

**Fully Buffered ECC, DDR2-667 DIMM Modules  
2 GB Sizes (256Mx72)**

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Qimonda (Infineon)	HYS72T256420 HFN-3S-A	HYB18T512400 AF-3.7	Qimonda (Infineon)		Intel			(128Mx4)*36		7/13/06
ATP Electronics	AP56K72G4BH E6S	K4T51043QC-ZCE6 rev C	Samsung	SP240G0 4K1 na				(128Mx4)*36		8/3/06
Smart Modular Technologies	SG2567FBD28 452IAD5	HYB18T512400 AF3S rev A	Qimonda (Infineon)	PG54G24 0NFSUB1 RES rev B				(128Mx4)*36		8/3/06
ATP Electronics	AP56K72G4BH E6S	K4T51043QC-ZCE6 rev C	Samsung	SP240G0 4K1 na				(128Mx4)*36		9/1/06
Smart Modular Technologies	SG2567FBD28 452IBD5	HYB18T512400 BF-3S rev B	Qimonda (Infineon)	PG54G24 0NFSUB1 RES rev B				(128Mx4)*36		9/18/06
Kingston	KVR667D2D4F 5/2GI	HYB18T512400 AF3S rev A	Qimonda (Infineon)	2025372-002.A00 na				(128Mx4)*36		10/23/06
Wintec Industries	39945344C	K4T51043QC-ZCE6 rev C	Samsung	D2F24E rev E				(128Mx4)*36		10/25/06
Dataram	DTM65508A	NT5TU128M4AE -3C rev A	Nanya	40060A rev A				(128Mx4)*36		10/27/06
Apacer	78.ADG9H.401	K4T51043QC-ZCE6 rev C	Samsung	48.1A205.011 rev 1				(128Mx4)*36		11/7/06
Kingston	KVR667D2D4F 5/2GI	E5104AG-6E-E rev G	Elpida	2025378-001.A00 na				(128Mx4)*36		11/22/06
Smart Modular Technologies	SG2567FBD28 452-IAI	HYB18T512400 AF3S rev A	Qimonda	240-25-4 na				(128Mx4)*36		11/22/06
Super Talent Electronics	T667FB2G4(Channel)/S2GTF4 EMS(OEM)	K4T51043QC-ZCE6 rev C	Samsung	BA2FRCE na				(128Mx4)*36		12/4/06
Smart Modular Technologies	SG2567FBD28 452-SCD	K4T51043QC-ZCE6 rev C	Samsung	M395T57 50-CZ0 na				(128Mx4)*36		12/8/06
Ventura Technology Group	D2-56VF82SIV-555	K4T51043QC-ZCE6 rev C	Samsung	D2F24E na				(128Mx4)*36		12/18/06
Viking	VR5EF567214 EBWL1	HYB18T512400 BF3S rev B	Qimonda	D2F24E				(128Mx4)*36		12/18/06
Kingston	KVR667D2D4F 5/2GI	NT5TU128M4AE -3C rev A	Nanya	2025372-002.A00 na				(128Mx4)*36		1/11/07
Qimonda	HYS72T256420 HFD-3S-A	HYB18T512400 AF-3S-A	Qimonda		IDT	1.5	HS	(128Mx4)*36		1/16/07
Kingston	KVR667D2D4F 5/2GI (INT/ELP)	E5104AG-6E-E	Elpida		Intel	D1	FDHS	(128Mx4)*36		1/16/07
Qimonda	HYS72T256420 HFN-3S-B	HYB18T512400 AF-3S-B	Qimonda		Intel	GB D1	FDHS	(128Mx4)*36		1/16/07

<b>Fully Buffered ECC, DDR2-667 DIMM Modules 2 GB Sizes (256Mx72)</b>										
<b>Manufacturer</b>	<b>Part Number</b>	<b>DRAM Part Number</b>	<b>DRAM Vendor</b>	<b>PCB Part Number</b>	<b>AMB Vendor</b>	<b>AMB Revision</b>	<b>Heat-sink Vendor</b>	<b>DRAM Organization</b>	<b>Rank</b>	<b>Date</b>
Samsung	M395T5750CZ4-CE61	K4T51043QC	Samsung		IDT	1.5	FDHS	(128Mx4)*36		1/16/07
Qimonda	HYS72T256420HFA-3S-B	HYB18T512400BF-3S-B	Qimonda		Qimonda	C1	FDHS	(128Mx4)*36	2	1/29/07
Buffalo	D2F667CW-W2GMBJ	MT47H128M4B6-3 rev D	Micron	2DFE24F-AA na				(128Mx4)*36	2	1/14/07
Kingston	KVR667D2D4F5/2GI	HYB18T512400BF3S rev B	Qimonda	2025372-002.A00 na	Intel	D1	Foxconn	(128Mx4)*36	2	1/28/07
Legacy Electronics Inc.	N527MYG90EN-30R	EDE5104AG-6E-E rev G	Elpida	D2F24E rev E	NEC	B5	AVC	(128Mx4)*36	2	2/3/07
Legacy Electronics Inc.	B527M4C90EN-30R	K4T51043QC-ZCE6 rev C	Samsung	D2F24E rev E	NEC	B5	AVC	(128Mx4)*36	2	2/6/07
Qimonda	HYS72T256420HFD-3S-B	HYB18T512400AF	Qimonda		IDT	1.5	FDHS	(128Mx4)*36	2	2/5/07
Samsung	M395T5750EZ4-CE65	K4T51043QE	Samsung		Intel	GB D1	FDHS	(128Mx4)*36	2	2/5/07
Micron	MT36HTF25672FY-667D1E3	MT47H128M4B6-3	Micron		Intel	GB C0	FDHS	(128Mx4)*36	2	2/13/07
Qimonda	HYS72T256420HFE-3S-B	HYB18T512400AF-3S-A	Qimonda		NEC	B5+	FDHS	(128Mx4)*36	2	2/13/07
Wintec Industries	WD2FE02GX818-667G-HE	MT47H128M8HQ-3:E rev E	Micron	D2F28B na	Intel	D1	Foxconn	(128Mx8)*18		2/16/07
Viking	VR5EF567214EBWL2	HYB18T512400BF3S rev B	Qimonda (Infineon)	D2F24E	NEC	B5+	Foxconn	(128Mx4)*36	2	2/23/07
Micron	MT18HTF25672FDY-667E1D4	MT47H128M8HQ-3:E	Micron		IDT	C1	FDHS	(128Mx8)*18	2	2/26/07
Micron	MT18HTF25672FDY-667E1E4	MT47H128M8HQ-3:E	Micron		Intel	GB D1	FDHS	(128Mx8)*18	2	2/26/07
ATP Electronics	AP56K72G4BHE6S	K4T51043QE-ZCE6 rev E	Samsung	SP240G04K1 na	NEC	B5	Foxconn	128M x 4		4/5/07
Hynix	HYMP525F72BP4D2-Y5	HY5PS12421BFP-Y5	Hynix		IDT	1.5	FDHS	(128Mx4)*36	2	4/9/07
Hynix	HYMP525F72CP4D3-Y5	HY5PS12421BFP-Y5	Hynix		IDT	C1	FDHS	(128Mx4)*36	2	4/9/07
Micron	MT18HTF25672FDY-667E1N6	MT47H128M8HQ-3:E	Micron		NEC	B5+	FDHS	(128Mx8)*9	2	4/9/07

(+) This vendor is part of the CMTL Certification program. This means this part has/will be tested across all compatible Intel Server Boards. For further information contact CMTL @ <http://cmtlabs.com/>

## Intel® SSR212MC2 Storage System, Server Board S5000PSL

### Fully Buffered ECC, DDR2-533 DIMM Modules

#### 4 GB Sizes (512Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Micron	MT36HTS51 272FY- 53EA2D3	MT47H512M4THJ- 3E	Micron		IDT 1.5	AMB048 0A5RJ A1.5				6/15/06
Qimonda	HYS72T512 422HFD-3.7- A	HYB18T2G402AF- 3.7	Qimonda		IDT	1.5	FDHS	(512Mx4)*18	2	2/13/07
Viking	VR5EF1272 14FBSL1	MT47H256M4HQ- 37E rev E	Micron		IDT	A5	Foxconn		2	2/16/07
Qimonda	HYS72T512 422HFN-3.7- A	HYMB18T2G402A F-3.7	Qimonda		Intel	GB-C0	FDHS	(512Mx4)*18	2	2/26/07
Samsung	M395T5166 AZ4-CD50	K4T2G264QA	Samsung		Intel	GB-C0	FDHS	(512Mx4)*18	2	2/26/07
Samsung	M395T5166 AZ4-CD51	K4T2G264QA- ZCD5	Samsung		IDT	1.5	FDHS	(256Mx4)*18	2	3/12/07

### Fully Buffered ECC, DDR2-667 DIMM Modules

#### 4 GB Sizes (512Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	AMB Vendor	AMB Revision	Heat-sink Vendor	DRAM Organization	Rank	Date
Kingston	KVR667D2D 4F5/4GI	K4T2G264QA- ZCE6 rev A	Samsung	M395T51 66AZ0 na				(256Mx4)*36		11/15/06
ATP Electronics	AP12K72D4 BGE6S	K4T2G264QA- ZCE6 rev A	Samsung	M395T51 66AZ0 na				(256Mx4)*36		12/8/06
Samsung	M395T5166 AZ4-CE61	K4T2G264QA	Samsung		IDT	1.5	FDHS	(2x256Mx4)* 18		11/14/06
Kingston	KVR667D2D 4F5/4GI	E1108ABSH-E rev B	Elpida	0646 na	IDT	A1.5	IDT	(256Mx4)*36	2	2/3/07
Micron	MT36HTF51 272FY- 667E1N6	MT47H256M4HQ- 3:E	Micron		NEC	B5+	FDHS	(256Mx4)*36	2	2/13/07
Legacy Electronics Inc.	M547RAE90 EE-30R	MT47H256M4HQ- 3 rev E	Micron	D2F24E rev E	IDT	A5	AVC	(256Mx4)*36	2	2/16/07
Micron	MT36HTF51 272FY- 667E1D4	MT47H256M4HQ- 3:E	Micron		IDT	C1	FDHS	(256Mx4)*36	2	2/26/07
Qimonda	HYS72T512 522HFN-3S- A	HYB18T2G402AF- 3S-A	Qimonda		Intel	D1	FDHS	(512Mx4)*18	2	2/26/07
Micron	MT36HTF51 272FY- 667E1E4	MT47H256M4HQ- 3:E	Micron		Intel	GB D1	FDHS	(256Mx4)*36	2	4/9/07

(+) This vendor is part of the CMTL Certification program. This means this part has/will be tested across all compatible Intel Server Boards. For further information contact CMTL @ <http://cmtlabs.com/>

## Sales Information

Vendor Name	Web URL	Vendor Direct Sales Info
ATP Electronics	<a href="http://www.atpinc.com/">http://www.atpinc.com/</a>	Albert Chung Tel: (1) 408-732-5831, Ext 5858 Fax: (1) 408-732-5055 <a href="mailto:sales@atpinc.com">sales@atpinc.com</a>
ATP Electronics -- Taiwan Inc.	<a href="http://www.atpinc.com/">http://www.atpinc.com/</a>	Patty Kuo Tel 011-886-2-2659-6368 Fax 886-2-2659-4982
Avant Technology	<a href="http://www.avanttechnology.com">http://www.avanttechnology.com</a>	Brad Scoggins Phone: (512)491-7411 Fax: (512)491-7412 <a href="mailto:brads@avanttechnology.com">brads@avanttechnology.com</a>
Aved Memory Products	<a href="http://www.avedmemory.com/">http://www.avedmemory.com/</a>	
Buffalo Technology	<a href="http://www.buffalotech.com/">http://www.buffalotech.com/</a>	(800) 967-0959 <a href="mailto:memory@buffalotech.com">memory@buffalotech.com</a>
Centon Electronics	<a href="http://www.centon.com">http://www.centon.com</a>	Tel: 949-855-9111 Fax: 949-855-6035
Corsair	<a href="http://www.corsairmicro.com/">http://www.corsairmicro.com/</a>	Tel: 510-657-8747 Fax: 510-657-8748
Dane-Elec	<a href="http://www.dane-memory.com/">http://www.dane-memory.com/</a>	Michal Hassan @ (949)450-2941 or email <a href="mailto:@Michal@Dane-memory.com">@ Michal@Dane-memory.com</a>
Dataram	<a href="http://www.dataram.com/">http://www.dataram.com/</a>	Paul Henke, 800-328-2726 x2239 in USA 609-799-0071 <a href="mailto:phenke@dataram.com">phenke@dataram.com</a>
GoldenRAM	<a href="http://www.goldenram.com">http://www.goldenram.com</a>	Jason M. Barrette @ 800-222-861 x7546 <a href="mailto:jasonb@goldenram.com">jasonb@goldenram.com</a> or Michael E. Meyer @800-222-8861 x7512 <a href="mailto:michaelm@goldenram.com">michaelm@goldenram.com</a>
Hitachi	<a href="http://semiconductor.hitachi.com/pointer/">http://semiconductor.hitachi.com/pointer/</a>	
Hyundai/Hynix Semiconductor	<a href="http://www.heacom/">http://www.heacom/</a>	
Qimonda (Infineon)	<a href="http://www.Qimonda(Infineon).com/business/distribut/index.htm">http://www.Qimonda(Infineon).com/business/distribut/index.htm</a>	
ITAUCOM	<a href="http://www.itaucom.com.br">http://www.itaucom.com.br</a>	
JITCO CO LTD	<a href="http://www.jitco.net/">http://www.jitco.net/</a>	Seong Jeon Tel: 82-32-817-9740 <a href="mailto:s.jeon@jitco.net">s.jeon@jitco.net</a>
Kingston	<a href="http://www.kingston.com">http://www.kingston.com</a>	US.- Call (877) 435-8726 Asia – Call 886-3-564-1539 Europe – Call +44-1932-755205
Legacy Electronics Inc.	<a href="http://www.legacyelectronics.com">http://www.legacyelectronics.com</a>	U.S. Contact: Gary Ridenour, 949-498-9600, Ext 350 European Contact: 49 89 370 664 11
Legend	<a href="http://www.legend.com.au">http://www.legend.com.au</a>	
Micron	<a href="http://silicon.micron.com/mktg/">http://silicon.micron.com/mktg/</a> <a href="http://silicon.micron.com/mktg/mbqual/qual_data.cfm">http://silicon.micron.com/mktg/mbqual/qual_data.cfm</a>	
MSC Vertriebs GmbH	<a href="http://www.msc-ge.com">http://www.msc-ge.com</a>	William Perrigo 49-7249-910-417 Fax: 49-7249-910-229 <a href="mailto:wpe@msc-ge.com">wpe@msc-ge.com</a>
Nanya Technology	<a href="http://www.ntc.com.tw">http://www.ntc.com.tw</a>	Winson Shao 886-3-328-1688, Ext 6018 <a href="mailto:winsonshao@ntc.com.tw">winsonshao@ntc.com.tw</a>

Vendor Name	Web URL	Vendor Direct Sales Info
Netlist, Inc	<a href="http://www.netlistinc.com">http://www.netlistinc.com</a>	Christopher Lopes 949.435.0025 tel 949.435.0031 fax <a href="mailto:sales@netlistinc.com">sales@netlistinc.com</a>
Peripheral Enhancements	<a href="http://www.peripheral.com/">http://www.peripheral.com/</a>	
Samsung	<a href="http://www.korea.samsungsemi.com/locate/buy/list_na.html">http://www.korea.samsungsemi.com/locate/buy/list_na.html</a>	For US customers go to: <a href="http://www.mymemorystore.com/">http://www.mymemorystore.com/</a>
Silicon Tech	<a href="http://www.silicontech.com/contact/salescontacts.shtml">http://www.silicontech.com/contact/salescontacts.shtml</a>	
Simple Tech	<a href="http://www.simpletech.com">http://www.simpletech.com</a>	Ron Darwish @ (949) 260-8230 or email @ <a href="mailto:Rdarwish@Simpletech.com">Rdarwish@Simpletech.com</a>
SMART Modular Technologies	<a href="http://www.smartm.com/channel">http://www.smartm.com/channel</a>	Gene Patino (949) 439-6167 <a href="mailto:Gene.Patino@Smartm.com">Gene.Patino@Smartm.com</a>
Super Talent Electronics	<a href="http://www.supertalentmemory.com">http://www.supertalentmemory.com</a>	David Crume (408) 957-8181 <a href="mailto:support@supertalentmemory.com">support@supertalentmemory.com</a>
Swissbit	<a href="http://www.swissbit.com">http://www.swissbit.com</a>	Tony Cerreta Tel: 914-935-1400 x240 Fax: 914-935-9865 <a href="mailto:tony.cerreta@swissbitna.com">tony.cerreta@swissbitna.com</a>
TechnoLinc Corporation	<a href="http://www.technolinc.com">http://www.technolinc.com</a>	David Curtis 510-445-7400 <a href="mailto:davidc@technolinc.com">davidc@technolinc.com</a>
TRS* Tele-Radio-Space GmbH	<a href="http://www.certified-memory.com">http://www.certified-memory.com</a> <a href="http://www.certified-memory.de">http://www.certified-memory.de</a>	Vender Direct Sales Info: Andreas Gruendl Tel: +49.89.945532-34 Fax: +49.89.945532-41 <a href="mailto:Andreas.gruendl@trs-eu.com">Andreas.gruendl@trs-eu.com</a>
Unigen	<a href="http://www.unigen.com">http://www.unigen.com</a>	
Ventura Technology Inc	<a href="http://www.venturatech.com">http://www.venturatech.com</a>	Sam Lewis 760 599-0080 ext. 1
Viking InterWorks	<a href="http://www.vikinginterworks.com">http://www.vikinginterworks.com</a>	
Virtium Technology Inc	<a href="http://www.virtium.com">http://www.virtium.com</a>	Tod Skelton @ (949) 460-0020 ext. 146 or email @ <a href="mailto:tod.skelton@virtium.com">tod.skelton@virtium.com</a>
Legend	<a href="http://www.legend.com.au">http://www.legend.com.au</a>	Tel: 800-338-2361 Fax: 949-459-8577 <a href="mailto:orderdesk@vikingcomponents.com">orderdesk@vikingcomponents.com</a>
Wintec Industries	<a href="http://www.wintecindustries.com">http://www.wintecindustries.com</a>	Tel 510-360-6300 Fax 510-770-9338



## **CMTL\* (Computer Memory Test Labs)**

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CMTL is a privately owned and operated memory testing organization responsible for testing a broad range of memory products. Memory devices tested by CMTL must undergo a rigorous battery of tests to ensure that the product will perform the intended server functions. Memory capability is a major factor your customers consider. CMTL has the ability to test and certify memory on Intel-based server platforms. The list of memory modules, which have undergone testing through the CMTL facility, should be referenced when considering modules for integration into this Intel server product. Stringent standards with regard to manufacturing procedures and quality must be met to pass the exacting tests required for qualification through the independent testing facility. Testing is performed by CMTL with Intel server products and test procedures defined by Intel's Memory Qualification Lab. Intel routinely audits the CMTL facility to ensure all procedures, process handling, and testing methodologies are met.

### **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 Rank on the memory module. Mixing of dissimilar memory manufacturer devices or dissimilar memory device speeds is not recommended. This document contains information which is the proprietary property of Intel 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® Storage Server SSR212MC2. 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® Storage Server SSR212MC2. Intel provides no indemnities for and expressly disclaims all liabilities for any and all such guaranties, representations, and warranties (oral or written) whether express or implied, related to DIMMs in a Intel® Storage Server SSR212MC2 product, including without limitation to: fitness for a particular purpose; merchantability; noninfringement 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.

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