Intel® Server Board SHG2
Memory List Test Report Summary

Revision 56.0
August 2006

Revision History		
Date	**Rev**	**Modifications**
June/02	0.5	Initial post-launch release for review.
June/02	1.0	Added Infineon 256MB part. (In shaded area)
June/02	2.0	Added ATP 256MB & 512MB parts. Added Smart Modular 128MB, 512MB & 1GB parts. Added Ventura 512MB parts. (In shaded area)
July/02	3.0	Added ATP 128MB & 512MB parts. Added Dataram 256MB, 512MB & 1GB parts. Added SimpleTech 1GB parts. Added Infineon 128MB & 512MB parts. Added Samsung 512MB part. Added Micron 512MB part. (In shaded area)
July/02	4.0	Added ATP 256MB & 1GB parts. Added Dataram 256MB parts. Added Kingston 256MB, 512MB & 1GB parts. Added SimpleTech 512MB parts. Added Ventura 1GB parts. Added Netlist 1G parts. (In shaded area)
Aug/02	5.0	Added Corsair 512MB parts. Added Dataram 512MB parts. Added Smart Modular 128MB, 256MB & 512MB parts. Added Micron & Samsung 256MB parts. (In shaded area)
Aug/02	6.0	Added ATP 512MB & 2GB parts. Added Avant 512MB parts. Added Aved 256MB & 512MB parts. Added Dataram 256MB & 512MB parts. Added Smart 512MB parts. (In shaded area)
Sept/02	7.0	Added Avant, Micron & Samsung 512MB parts. Added Buffalo 512MB parts. Added Dane-Elec 512MB parts. Correction made to Micron 512MB part. (In shaded area)
Sept/02	8.0	Correction made to Micron 512MB part. (In shaded area)
Sept/02	9.0	Added ATP 512MB & 1GB parts. Added Avant 512MB parts. Corsair 1GB parts. Added Legend 512MB parts. Added 256MB & 512MB parts. (In shaded area)
Octt/02	10.0	Added Avant 1GB parts. Added Centon, Dane-Elec, Legend & Infineon 512MB parts Added Hynix 256MB & 128MB parts. Added Samsung 128MB part. (In shaded area)
Octt/02	11.0	Added Dataram 512MB & 1GB parts. Added Peripheral Enhancements 256MB & 1GB parts. Correction made to Netlist 512MB part. (In shaded area)
Oct/02	12.0	Added Avant, Centon, Dataram & Legend 1GB parts. (In shaded area)
Nov/02	13.0	Added ATP & Apacer 1GB parts. Added Avant, Added ITAUCOM & MSC 512MB parts. Added Centon & Hynix 256MB parts. (In shaded area)
Dec/02	14.0	Added Buffalo 512MB parts. (In shaded area)
Jan/03	15.0	Added MSC & Viking 1GB parts. Added Dataram & Viking 256MB parts. Added Viking 512MB parts. (In shaded area)
Jan/03	16.0	Added Dataram 1GB parts. Added Infineon 256MB parts. (In shaded area)
Jan/03	17.0	Added Avant & Dataram 512MB parts. Added Avant & Dataram 1GB parts. Removed Infineon 256MB part. (In shaded area)
Feb/03	18.0	Added ATP & Avant 1GB parts. Added Transcend & Viking 512MB parts. Added Viking 256MB parts. (In shaded area)
Mar/03	19.0	Added Avant 1GB & 512MB parts. Removed Kingston 256MB, 512MB & 1G parts as they are EOL. (In shaded area)
Mar/03	20.0	Added ATP 128MB part. Added Vidking 512MB part. Added Avent 512MB & 1G parts. (In shaded area)
April/03	21.0	Added Apacer & ATP 1GB parts. (In shaded area)
May/03	22.0	Added Avant & Viking 1GB parts. Added Netlist, Samsung, ATP & Avant 512MB parts. Added Samsung 128MB parts. (In shaded area)
June/03	23.0	Added Viking 256 & 512MB parts. Added Buffalo 256MB & 512MB parts. (In shaded area)
June/03	24.0	Added Buffalo 1GB parts. (In shaded area). Also updated EOL status
July/03	25.0	Added TRS 256MB and 512MB parts. (In shaded area) Also updated EOL status
July/03	26.0	Added TRS 512MB parts. Added Samsung 256MB, 512MB, 1G &2G parts. (In shaded area)
Aug/03	27.0	Added Samsung 512MB & 1G parts. (In shaded area) Updated EOL status
Sep/03	28.0	Added TRS 1GB parts. (In shaded area)
Nov/03	29.0	Added Legend 256MB, 512MB and 1GB parts. Added Viking 1GB parts. (In shaded area)
Nov/03	30.0	Added ATP 1GB parts. Added TRS 2GB parts. (In shaded area)
Dec/03	31.0	Added ATP 1GB parts. Added Dataram 2GB parts. (In shaded area)
Jan/04	32.0	Added Legend 1GB parts. (In shaded area)
Feb/04	33.0	Added Smart 512MB parts. (In shaded area)
Feb/04	34.0	Added Smart and TRS 1GB parts. New CMTL address. (In shaded area)
Mar/04	36.0	Updated EOL Status

Revision History		
Date	**Rev**	**Modifications**
Apr/04	37.0	Added Avant 1GB parts. (In shaded area)
May/04	38.0	Added Centon 1GB parts. (In shaded area)
Jun/04	39.0	Added Avant 512MB parts. Added Dataram 1GB parts. (In shaded area)
Jun/04	40.0	Added Dane-Elect 256MB parts. Added TRS 1GB parts.
July/04	41.0	Added Dataram 1GB and 2GB parts. (In shaded area)
Aug/04	42.0	Added Dataram 1GB parts. (In shaded area)
Sept/04	43.0	Added support for DDR333 modules. Added TRS and Centon 512MB parts. (In shaded area)
Sep/04	44.0	Added Avant 512MB parts. (In shaded area)
Sep/04	45.0	Added Viking 1GB parts. (In shaded area)
Oct/04	46.0	Added TRS 1GB parts. (In shaded area)
Dec/04	47.0	Added TRS 1GB parts. (In shaded area)
Feb/05	48.0	Added Buffalo 512MB parts. (In shaded area)
Feb/05	49.0	Added Buffalo 512MB parts. (In shaded area)
Mar/05	50.0	Added note on Lead free modules (these modules are now in bold text). Added Legend 256MB parts. (in shaded area)
Apr/05	51.0	Added Buffalo 1GB parts. Added Legend 2GB parts. (In shaded area)
May/05	52.0	Updated contact information.
Aug/05	53.0	Added Kingston 512MB and 1GB parts. Added TRS 2GB parts. (In shaded area)
Mar/06	54.0	Added Legend 512MB and 1GB parts. (In shaded area)
July/06	55.0	Added Kingston 1GB part. (In shaded area)
Aug/06	56.0	Added Kingston 2GB part. (In shaded area)

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The Intel® Server Board SHG2 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.

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

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Overview of Memory Testing

The following procedure is used to test memory modules for use in the Intel® Server Board SHG2. Memory is a vital subsystem in a platform. Intel Corporation requires strict guidelines to be met before a memory vendor and part is put onto the qualified memory list. Each Intel Server Board product has a separate qualified memory list.

Memory qualification for Intel's Server Board products is performed by Intel's Memory Validation Laboratory (MVL), and by an independent external test laboratory, Computer Memory Test Lab (CMTL)[1]. CMTL is a leading memory testing organization responsible for testing a broad range of memory products. Memory devices tested by Intel's MVL or CMTL must undergo rigorous tests to ensure that the product will perform the intended server functions.

Intel®'s Server and Workstation Board 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 memory meets Intel's memory specifications. The standard voltage and room temperature test involves testing the memory module on the particular Intel board for which it is being qualified with test software operating under Microsoft* Windows* 2000 Advanced Server for no less than 24 hours. The voltage and temperature margin testing involves testing the memory module on the particular Intel board for which it is being qualified with various test software and operating systems for 48-72 hours under various voltage and temperature margin conditions. Memory modules 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.

For information regarding the testing procedure required to reach each phase, please contact your Intel Representative.

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[1] CMTL is an independent memory testing organization responsible for testing a broad range of memory products. Receiving a "PASS" after being tested by CMTL, means that a product functions correctly and consumers can use it 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 equipment and a procedure as defined by Intel's various functional testing levels. CMTL contact:

Office: (949) 716-8690
Fax (949) 716-8691

Computer Memory Test Lab (CMTL)
24 Hammond Suite F
Irvine, CA 92618
http://www.cmtlabs.com/

Qualified Memory for the Intel® Server Board SHG2

The memory module on the server board SHG2 has 6 DIMM sockets, which can hold up to 12 GB of Registered ECC DDR200, DDR266 or DDR333 memory using six 72-bit DIMM modules. The following memory features are supported:

- DDR200, DDR266 and DDR333 registered ECC compatible 2.5V modules (in compliance with the DDR JEDEC DIMM Specification)
- DIMMs with capacity of 128MB, 256 MB, 512 MB, 1G and 2G. Other DRAM sizes may function correctly but will not be validated.
- Minimum configuration is 256MB using two 128MB DIMM.

The memory controller in the Server Works LE chipset supports memory scrubbing, single-bit error correction and multiple-bit error detection and chip kill support with x4 DIMMs. Memory can be implemented with either single sided (one row) or double-sided (two row) DIMMs. Chipkill Correct Memory architecture gives the memory sub-system the ability to withstand a multi bit failure within a DRAM device, including a failure that causes incorrect data on all data bits of the device. The chipset can only support chipkill architecture with DIMMs that are built consisting of x4 DRAM devices.

Below is a chart that lists the current supported memory types: Note:

DDR200 and DDR266 Registered DRAM Module Configurations for Cas Latency 2 & 2.5					
DIMM Capacity	**DIMM Organization**	**DRAM Density**	**DRAM Organization**	**# DRAM Devices/rows/Banks**	**# Address bits rows/Banks/column**
128MB	16M x 72	128Mbit	16M x 8	9/1/4	12/2/10
256MB	32M x 72	128Mbit	32M x 4	18/1/4	12/2/11
256MB	32M x 72	128Mbit	16M x 8	18/2/4	12/2/10
256MB	32M x 72	256Mbit	32M x 8	9/1/4	13/2/10
512MB	64M x 72	256Mbit	64M x 4	18/1/4	13/2/11
512MB	64M x 72	256Mbit	32M x 8	18/2/4	13/2/10
512MB	64M x 72	512Mbit	64M x 8	9/1/4	13/2/11
1GB	128M x 72	256Mbit	64M x 4	36/2/4	13/2/11
1GB	128M x 72	512Mbit	64M x 8	18/2/4	13/2/11
1GB	128M x 72	512Mbit	128M x 4	18/1/4	13/2/12
2GB	256M x 72	512Mbit	128M x 4	36/2/4	13/2/12
DDR333 Registered DRAM Module Configuration Matrix					
256MB	32M x 72	128Mbit	32M x 4	18/1/4	12/2/11
256MB	32M x 72	128Mbit	16M x 8	18/2/4	12/2/10
256MB	32M x 72	256Mbit	32M x 8	9/1/4	13/2/10
512MB	64M x 72	256Mbit	64M x 4	18/1/4	13/2/11
512MB	64M x 72	256Mbit	32M x 8	18/2/4	13/2/10
512MB	64M x 72	512Mbit	64M x 8	9/1/4	13/2/11
1GB	128M x 72	512Mbit	128M x 4	18/1/4	13/2/12
1GB	128M x 72	512Mbit	64M x 8	18/2/4	13/2/11
1GB	128M x 72	1Gbit	128M x 4	9/1/4	14/2/11
2GB	256M x 72	1Gbit	128M x 4	18/1/4	14/2/12
2GB	256M x 72	1Gbit	128M x 8	18/2/4	14/2/11

Memory features are detailed in *the Intel® Server Board SHG2 Technical Product Specification* available on-line at http://support.intel.com/support/motherboards/server/SHG2

The following table lists DIMM devices known to be compatible with the Intel Server Board SHG2. Intel recommends that Advanced Tested DIMMs be used to establish reliable system operation. DIMM devices not listed can be used; but, in the event of unreliable system operation, the DIMM devices should be replaced with functionally Advanced Tested DIMMs to determine whether the DIMM devices are causing the problem.

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.

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.

This list is subject to change without notice.

Server Board SHG2

Registered, ECC, DDR200 DIMM Modules
128MB Sizes (16Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M312L1713DT0-CA0	K4H280838D-TCA0	Samsung		6/11/02	2	Yes	16Mx8	
Infineon	HYS72D16000GR-8-A	HYB25D128800AT-8	Infineon		6/21/02	2		16Mx8	

Registered, ECC, DDR266 DIMM Modules
128MB Sizes (16Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Micron	MT9VDDT1672G-265B1	MT46V16M8-75 B	Micron		6/11/02	2.5		16Mx8	
+Smart Modular Technologies	SM1672RDDR301-ICA	K4H280838C-TCA2 rev C	Samsung	P51G184NEBZ6IB1 rev A	6/19/02	2		16Mx8	
Infineon	HYS72D16000GR-7-A	HYB25D128800AT-7A	Infineon		6/21/02	2		16Mx8	
+ATP Electronics	AB16L72A8SEB0S	K4H280838D-TCB0 rev D	Samsung	SB184A08L	6/26/02	2.5		16Mx8	EOL
+Smart Modular Technologies	SM1672RDDR301-ICB	NT5DS16M8AT-7K	Nanya	P51G184NEBZ6IB1 rev A	7/31/02	2		16M x 8	EOL
Hynix	HYMD116G725B8M-H	HY5DU28822BT-H	Hynix		9/25/02	2.5	Yes	16M x 8	
Samsung	M383L1713DTS-CA2	M383L1713DTS-CA2	Samsung		9/25/02	2		16M x 8	
+ATP Electronics	AB16L72Q8SEB0S	K4H280838E-TCB0 rev E	Samsung	SB184Q08L1 rev 1	3/17/03	2.5	Yes	16M x 8	EOL
Samsung	M312L1713DT0-CA2	K4H280838D-TCA2	Samsung		11/04/02	2	Yes	16M x 8	

Modules shaded in blue are low profile.

Modules in bold text do not contain Lead.

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

Server Board SHG2

Registered, ECC, DDR200 DIMM Modules
256MB Sizes (32Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Infineon	HYS72D32501GR-8-A	HYB25D128400AT-8	Infineon		6/13/02	2	Yes	32Mx8	
Micron	MT18VDDT3272G-202Z1	MT46V32M4-75A	Micron		8/05/02	2		32Mx4	

Registered, ECC, DDR266 DIMM Modules
256MB Sizes (32Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M383L3310DTS-CA2	K4H280438D-TCA2	Samsung		6/3/02	2		32Mx4	
+ATP Electronics	AB32L72R4S4B0S	K4H280438C-TCB0 rev C	Samsung	SB184R04L1	6/20/02	2.5	Yes	32Mx4	EOL
+ATP Electronics	AB32L72A8S4B0S	K4H280838D-TCB0 rev D	Samsung	SB184A08L	6/20/02	2.5		16Mx8	EOL
+ATP Electronics	AB32L72A8S4B0	NT5DS16M8AT-7K rev D	Nanya	SB184A08L rev.1	7/18/02	2.5		16Mx8	EOL
+Dataram	DTM63629B (Old Part# DTM63629(Y))	HY5DU28822AT-H rev A	Hyundai	40555 rev A	7/9/02	2.5	Yes	16Mx8	
+Dataram	DTM63616A (Old Part# DTM63616(E))	HYB25D256800AT-7 rev A	Infineon	40555 rev A	7/9/02	2.5	Yes	32Mx8	
Samsung	M312L3310DT0-CA2	K4H280438D-TCA2	Samsung		7/29/02	2		32Mx4	
Micron	MT9VDDT3272G-265B2	MT46V32M8-75B	Micron		8/05/02	2.5		32Mx4	
+Smart Modular Technologies	SM3272RDDR301-ICB	NT5DS16M8AT-7K	Nanya	P51G184NEBZ6IB1 rev A	8/02/02	2		16M x 8	EOL
+Aved Memory Products	AMP383D3313DT1-CA2/S	K4H280838D-TCA2 rev D	Samsung	105601 rev A	8/9/02	2		16M x 8	EOL
+Dataram	DTM63640B	MT46V32M4TG-75 rev B	Micron	40581A	8/14/02	2.5	Yes	32M x 4	
+MSC Vertriebs GmbH	MSC 256M00093	HYB25D256800BT-7 rev B	Infineon	PCB M0481LA2	9/11/02	2		32M x 8	EOL
Hynix	HYMD132G725B4M-H	HY5DU28422BT-H	Hynix		9/30/02	2.5	Yes	32M x 4	
Peripheral Enhancements	D2184-SR-256M-E351808	46V16M8 rev B	Micron	RCE005	7/23/02	2		16M x 8	EOL
+Centon Electronics	TOP02-C006F (Old Part#:CMB256M/RD266S)	MT46V32M8TG-75 rev B	Micron	DR513872 rev A	10/31/02	2.5		32M x 8	EOL
Hynix	HYMD132G7258-L	HY5DU28822T-L	Hyundai		10/31/02	2	Yes	64Mx4	

Registered, ECC, DDR266 DIMM Modules
256MB Sizes (32Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Dataram	DTM63640A	HYB25D128400AT-7 rev A	Infineon	40581A rev A	12/17/02	2.5	Yes	32M x 4	EOL
+Viking	VI4CR327224CTHL1	K4H280438D-TCB0 rev D	Samsung	03-0291 Rev A	12/9/02	2.5	Yes	32M x 4	EOL
+Viking	VI4CR327228DTHL2	MT46V32M8TG-75 rev B	Micron	0000905A	2/24/03	2.5	Yes	32M x 8	EOL
+Viking	VI4CR327228DTHL3	MT46V32M8TG-75 rev C	Micron	0000905A	5/9/03	2.5	Yes	32M x 8	
+Buffalo	DD266L-RS256/SD	K4H560838D-TCB0 rev D	Samsung	1D188EF-AA	4/30/03	2.5	Yes	32M x 8	
+Buffalo	DD266-R256/SE	K4H280838E-TCB0 rev E	Samsung	RCE0502-AA	5/5/03	2.5		16M x 8	
+TRS* Tele-Radio-Space GmbH	TRS21150	HYB25D256800BT-7 rev B	Infineon	M0529LA1 rev 1	6/24/03	2	Yes	32M x 8	
Samsung	M312L3223ETS-CA2	K4H560838E-TCCA2	Samsung		7/15/03	2	Yes	32M x 8	
+Legend	L3272YC5-RU1HDC5B	HY5DU56822BT-J rev B	Hyundai	DRR1U0818-A rev 1	10/31/03	2.5	Yes	32M x 8	
+Dane-Elec	ODLD266R072325I-1MC	MT46V32M8TG(P)-6T rev C	Micron	DR1G872-A rev A	6/3/04	2.5	Yes	32M x 8	

Registered, ECC, DDR333 DIMM Modules
256MB Sizes (32Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Legend	L3272YC6-RU1HDC5B	HY5DU56822BT-D43 rev B	Hyundai	DRR1U0818-A rev 1	3/11/05	2.5	Yes	32M x 8	

Modules shaded in blue are low profile.

Modules in bold text do not contain Lead.

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

Server Board SHG2

Registered, ECC, DDR200 DIMM Modules
512MB Sizes (64Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Infineon	HYS72D64000GR-8-A	HYB25D256400AT-8	Infineon		4/30/02	2	Yes	64x4	
Samsung	M383L6420DTS-CA0	K4H560438D-TCA0	Samsung		6/28/02	2		64Mx4	
Samsung	M312L6420DT0-CA0	K4H560438D-TCA0	Samsung		8/29/02	2	Yes	64M x 4	

Registered, ECC, DDR266 DIMM Modules
512MB Sizes (64Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Ventura Technology Group	D52WVK25SV	K4H560838C-TCB0 rev C	Samsung	V208	6/24/02	2.5		32M x 8	EOL
+Smart Modular Technologies	SM6472RDDR301-ICB	NT5DS32M8AT-7K	Nanya	P51G184N EBZ6IB1 rev A	6/24/02	2		32M x 8	EOL
Micron	#MT18VDDT6472G-265B2	MT46V64M4-75 B	Micron		6/13/02	2.5	Yes	64Mx4	
+ATP Electronics	AB64L72A8S8B0S	K4H560838D-TCB0 rev D	Samsung	SB184A08 L	6/24/02	2.5		32M x 8	EOL
+ATP Electronics	AB64L72R4S8B0S	K4H560438D-TCB0 rev D	Samsung	SB184R04 L1	6/26/02	2.5	Yes	64M x 4	EOL
Infineon	HYS72D64500GR-7-A	HYB25D256400AT-7	Infineon		6/28/02	2	Yes	64Mx4	
+Dataram	DTM63617C (Old Part# DTM63617(E)	HYB25D256800AT-7 rev A	Infineon	40555 rev A	7/2/02	2.5	Yes	32M x 8	EOL
+Dataram	DTM63617D	MT46V32M8TG-75 rev B	Micron	40555 rev A	7/2/02	2.5	Yes	32M x 8	EOL
SimpleTech	ST72E8F64-A75E	K4H560838D-TCB0	Samsung	01047	7/13/02	2.5	Yes	32M x 8	EOL
Corsair	CM73SD512RLP-2100/S	K4H560438D-TCB0 rev D	Samsung	50-00112 rev A	7/30/02	2.5	Yes	64M x 4	EOL
+Dataram	DTM63641B	MT46V64M4TG-75 rev B	Micron	40581A	8/5/02	2.5	Yes	64M x 4	EOL
+Smart Modular Technologies	SM6472RDDR301-ICA	K4H560838C-TCA2 rev C	Samsung	P51G184N EBZ6GIB1 rev A	7/29/02	2		32M x 8	EOL
+ATP Electronics	AB64L72A8S8B0	NT5DS32M8AT rev D	Nanya	SB184A08 L rev1	8/7/02	2.5		32M x 8	EOL
+Avant Technology	AVM7264R38C5266K0-A	K4H560438C-TCB0 rev C	Samsung	50-1415-01 rev B	8/9/02	2.5	Yes	64M x 4	EOL
+Aved Memory Products	AMP383D6420CT3-CB0/S	K4H560438C-TCB0 rev C	Samsung	105611 rev A	8/19/02	2.5	Yes	64M x 4	EOL
+Dataram	DTM63641A	HYB25D256400AT-7 rev A	Infineon	40581AA	8/13/02	2.5	Yes	64M x 4	EOL
+Smart Modular Technologies	SM6472RDDR301B-ICA	K4H560438D-TCA2	Samsung	P512184N VSZ6GAX rev A	8/7/02	2		64M x 4	EOL

Registered, ECC, DDR266 DIMM Modules
512MB Sizes (64Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M383L6420DTS-CA2	K4H560438D-TCA2	Samsung		8/21/02	2		64M x 4	
+Avant Technology	AVM7264R39C2266K1-A	NT5DS32M8AT-7K rev A	Nanya	50-1411-01-A rev A	8/22/02	2	Yes	32M x 8	EOL
Micron	MT18VDDT6472G-265B1	MT46V64M4-75B	Micron		8/27/02	2.5		64M x 4	
+Buffalo	DD266-R512/MB	46V32M8-75 rev B	Micron	RCE0501-AB	8/29/02	2.5		32M x 8	
+Dane-Elec	D1D266R072642I	NT5DS32M8AT-7K rev A	Nanya	DR513872 rev A	8/29/02	2		32M x 8	EOL
+ATP Electronics	AB64L72Q8S8B0S	K4H560838D-TCB0 rev D	Samsung	SB184Q08 L1 rev 1	9/5/02	2.5	Yes	32M x 8	EOL
+Avant Technology	AVM7264R38C2266K0-A	NT5DS64M4AT-7K rev A	Nanya	50-1415-01-B rev B	9/13/02	2	Yes	64M x 4	EOL
+Legend	L6472YC5-PPASDC5D	K4H560438D-TCB0 rev D	Samsung	18-25141A rev A	9/3/02	2.5	Yes	64M x 4	EOL
+MSC Vertriebs GmbH	MSC 512M00094	HYB25D256800BT-7 rev B	Infineon	PCB M0481LA2	9/9/02	2		32M x 8	EOL
+MSC Vertriebs GmbH	MSC 512M00098	MT46V32M8TG-75 rev B	Micron	PCB M0481LA2	9/9/02	2.5		32M x 8	EOL
+Centon Electronics	#TOP02-C001A (Old Part-CMB512M/RD266S)	MT46V32M8TG-75 rev B	Micron	DR513872 rev A	9/17/02	2.5		32M x 8	EOL
+Dane-Elec	D1D266R072642H	HYB25D256400AT-7 rev A	Infineon	DE042036 rev B	9/25/02	2	Yes	64M x 4	EOL
+Legend	L6472TC5-RR2HDC5A	HY5DU56822AT-H rev A	Hyundai	DRR720818A rev 2	9/20/02	2.5		32M x 8	EOL
Infineon	HYS72D64320GBR-7-B	HYB25D256800BC-7	Infineon		9/26/02	2	Yes	32M x 8	
Netlist	# L9647RD64042-D21J	K4H560438D-TCB0	Samsung		7/22/02	2.5	Yes	64Mx4	
+Dataram	DTM63641E	HYB25D256400BT-7 rev B	Infineon	40581A rev A	10/7/02	2.5	Yes	64M x 4	EOL
Peripheral Enhancements	D2184-SR-512M-E35180802	NT5DS32M8AT-7K rev A	Nanya	E179889	7/23/02	2	Yes	32M x 8	EOL
+Avant Technology	AVM7264R39C5266K1-A	K4H560838C-TCB0 rev C	Samsung	50-1411-01-A rev A	11/4/02	2.5	Yes	32M x 8	EOL
ITAUCOM	512E2665R24	ICM4L560407-65	Micron	0163 A	11/8/02	2.5		64M x 4	EOL
+MSC Vertriebs GmbH	MSC512M00154	MSCD8608A8A-75B	MSC Vertriebs GmbH	M0481LA2	10/30/02	2.5		32M x 8	EOL
+Buffalo	DD266-R512/SD	K4H560838D-TCB0 rev D	Samsung	RCE0501-AB	12/2/02	2.5		32M x 8	
+Viking	VI4CR647228DTHL1	K4H560838D-TCB0 rev D	Samsung	0000905AG	12/16/02	2.5	Yes	32M x 8	EOL
+Avant Technology	AVM7264R38C5266K0-A	MT46V64M4TG-75 B rev B	Micron	50-1415-01 rev B	1/14/03	2.5	Yes	64M x 4	EOL
+Dataram	DTM63641G	MT46V64M4TG-75 rev C	Micron	40581A rev A	1/21/03	2.5	Yes	64M x 4	

Registered, ECC, DDR266 DIMM Modules
512MB Sizes (64Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Transcend Information, Inc	TS64MDR72V6FI	K4H560838D-TCB0	Samsung	09-1590	2/18/03	2.5	Yes	32M x 8	EOL
+Viking	VI4CR647228DTHL2	K4H560838D-TCB0	Samsung	0000905A	2/21/03	2.5	Yes	32M x 8	EOL
+Avant Technology	AVM7264R38C5266K0-A	MT46V64M4TG-75 C rev C	Micron	50-1415-01-B rev B	3/6/03	2.5	Yes	64M x 4	EOL
+Avant Technology	AVM7264R39C5266K1-A	MT46V32M8TG-75 C rev C	Micron	50-1411-01-A rev A	3/12/03	2.5	Yes	32M x 8	EOL
+Viking	VI4CR647224DTHL2	MT46V64M4TG-75 rev B	Micron	03-0291 rev A	3/17/03	2.5	Yes	64M x 4	EOL
Netlist	NL9647RD64042-D21J	K4H560438D-TCB0	Samsung		10/4/02	2.5	Yes	64M x 4	
Samsung	M312L6420DT0-CA2	K4H560438D-TCA2	Samsung		10/22/02	2	Yes	64M x 4	
+ATP Electronics	AB64L72R4S8A2	NT5DS64M4AT-7K	Nanya	SB184R04L1 rev 1	4/9/03	2	Yes	64M x 4	EOL
+Avant Technology	AVM7264R39C5266K1-A	MT46V32M8-75 B rev B	Micron	50-1411-01-A rev A	4/9/03	2.5	Yes	32M x 8	EOL
+Buffalo	DD266L-R512/SD	K4H560838D-TCB0 rev D	Samsung	1D188EF-AA	5/14/03	2.5	Yes	32M x 8	
+Viking	VI4CR647228DTHL4	MT46V32M8TG-75 rev C	Micron	0000905A rev A	5/19/03	2.5	Yes	32M x 8	
+TRS* Tele-Radio-Space GmbH	TRS21152	HYB25D256800BT-7 rev B	Infineon	M0529LA1 rev 1	6/26/03	2	Yes	32M x 8	
TRS	TRS21151	HYB25D256400BT-7 rev B	Infineon	M0530LA1 rev 1	6/27/03	2	Yes	64M x 4	
Samsung	M312L6420ETS-CA2	K4H560438E-TCA2	Samsung		7/15/03	2	Yes	64M x 4	
Samsung	M383L6420ETS-CB0	K4H560438E-TCB0	Samsung		08/5/03	2.5		64M x 4	
Samsung	M312L6420ETS-CAA	K4H560438E-TCAA	Samsung		08/5/03	2	Yes	64M x 4	
+Legend	L6472YC5-RU1HDC5B	HY5DU56822BT-J rev B	Hyundai	DRR1U0818-A rev 1	10/29/03	2.5	Yes	32M x 8	
+Legend	L6472YC5-182HDD5A	HY5DU56422AT-K rev A	Hyundai	184RL rev 2	10/13/03	2.5	Yes	64M x 4	
+Smart Modular Technologies	SM6472RDDR320LP-I	HYB25D256400BT-7 rev B	Infineon	184-M12-2	1/23/04	2	Yes	64M x 4	
+Avant Technology	AVM7264R38C5266K0-A	NT5DS64M4BT-75B rev B	Nanya	50-1415-01-B rev B	5/26/04	2.5	Yes	64M x 4	
+TRS	TRS21202	HYB25D256400CE-7 rev C	Infineon	M0530LA1 rev 1	8/24/04	2	Yes	64M x 4	
+Centon Electronics	TOP02-E007G	MT46V64M8TG(P)-6T rev C	Micron	DR1G872 rev A	8/10/04	2.5	Yes	64M x 8	
+Centon Electronics	TOP02-E008H	MT46V64M8TG(P)-6T rev C	Micron	DR1G872 rev A	8/26/04	2	Yes	64M x 8	
+Avant Technology	AVM7264R39C5266K1-MVA	V58C2256804SAT5B rev A	Mosel Vitelic	50-1411-01-A rev A	9/3/04	2.5	Yes	32M x 8	

Registered, ECC, DDR333 DIMM Modules
512MB Sizes (64Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Buffalo	DD333L-R512/SF	K4H560838F-TCB3 rev F	Samsung	1D188EF-AA	1/19/05	2.5	Yes	32M x 8	
+Buffalo	DD333L-R512/MG	MT46V32M8TG(P)-6T rev G	Micron	1D188EF-AA	2/3/05	2.5	Yes	32M x 8	
+Kingston	**KVR333S4R25/512I**	**K4H560438E-GCB3 rev E**	**Samsung**	**2025161-001.B00 na**	**07/12/05**	**2.5**	**Yes**	**64M x 4**	
+Kingston	**KVR333S4R25/512I**	**HYB25D256400CC-6 rev C**	**Infineon**	**2025161-001.B00**	**07/18/05**	**2.5**	**Yes**	**64M x 4**	
+Legend	**L6472YC6-RU1HDHSC**	**HY5DU12822CTP-J rev C**	**Hynix**	**DDR1U0818 rev A**	**2/22/06**	**2.5**	**Yes**	**64M x 8**	

Modules shaded in blue are low profile.

Modules in bold text do not contain Lead.

(#) Part number change/correction

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

Server Board SHG2

Registered, ECC, DDR200 DIMM Modules
1GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M312L2828DT0-CA0	K4H560438D-TCA0	Samsung		6/11/02	2	Yes	64Mx4	

Registered, ECC, DDR266 DIMM Modules
1GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M312L2828DT0-CA2	K4H560438D-TCA2	Samsung		6/11/02		Yes	64Mx4	
+Smart Modular Technologies	SM12872RDDR301-ICB	K4H560438C-TCA2	Samsung	P52G184NV SZKGOX rev A	6/24/02	2		128Mx4	EOL
+Dataram	DTM63621D	MT46V64M4TG-75 rev B	Micron	40556 rev B	6/28/02	2.5	Yes	64Mx4	EOL
SimpleTech	ST72E4L128-A75E	K4H560438D-TCB0	Samsung	00853 rev A	6/28/02	2.5		64Mx4	EOL
+ATP Electronics	AB28L72P4SMB0S	K4H560438D-TCB0 rev D	Samsung	SB184P04L1	7/11/02	2.5	Yes	64Mx4	EOL
Ventura Technology Group	D54WPK28SV	K4H560438D-TCB0 rev D	Samsung	V213	7/11/02	2.5		64Mx4	EOL
Netlist	NL9127RD64052-D21J	K4H560438D-TCB0	Samsung		7/22/02	2.5	Yes	64Mx4	
+ATP Electronics	AB28L72P4SMB0A	NT5DS64M4AT-7K	Nanya	SB184P04L1 rev 1	9/11/02	2.5	Yes	64M x 4	EOL
Corsair	CM74SD1024RLP-2100/Y	NT5DS64M4AT-7K rev A	Nanya	50-00115 rev A	9/16/02	2.5	Yes	64M x 4	EOL
+Avant Technology	AVM7228R82C2266K1-A	NT5DS64M4AT-7K rev A	Nanya	50-1416-01-A rev A	9/25/02	2	Yes	64M x 4	EOL
+Dataram	DTM63621C	HYB25D256400AT-7 rev A	Infineon	40556 rev B	7/25/02	2.5	Yes	64M x 4	EOL
+Avant Technology	AVM7228R38C2266K3-A	NT5DS64M4AT-7K rev A	Nanya	BRDB45A	10/23/02	2		64M x 4	EOL
+Centon Electronics	TOP02-C002B (Old Part# CMB1G/RD266S)	MT46V64M4TG-75 rev B	Micron	LE36DDT1844R rev A	10/21/02	2.5	Yes	128M x 4	EOL
+Dataram	DTM63621F	HYB25D256400BT-7 rev B	Infineon	40556 rev B	10/21/02	2	Yes	64M x 4	
+Legend	L1272YC5-PPBSDD5D	K4H560438D-TCB0 rev D	Samsung	18-21040B rev B	10/16/02	2.5	Yes	64M x 4	EOL
+ATP Electronics	AB28L72T4SQB0S	K4H560438D-TCB0 rev D	Samsung	SB184T04L2 rev 2	10/29/02	2.5		64M x 4	EOL
Apacer	Apacer 75.06280.792	HYB25D256400BT-7	Infineon		11/13/02	2	Yes	64Mx4	
+MSC Vertriebs GmbH	MSC001G00096	HYB25D512800AT-7 rev A	Infineon	M0481LA2	12/4/02	2		64M x 8	EOL
+Viking	VI4CR287224DYHL1	K4H560438D-TCB0 rev D	Samsung	03-0291 Rev A	12/9/02	2.5	Yes	64M x 4	EOL
+Dataram	DTM63621H	MT46V64M4TG-75 rev C	Micron	40556 rev B	1/10/03	2.5	Yes	64M x 4	EOL
+Dataram	DTM63653C	K4H560438D-GCA2 rev D	Samsung	40599A rev A	1/10/03	2.5	Yes	64M x 4	EOL

Registered, ECC, DDR266 DIMM Modules
1GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Avant Technology	AVM7228R38C5266K3-A	MT46V64M4TG-75 B rev B	Micron	BRDB45A rev A	1/23/03	2.5		64M x 4	EOL
+Dataram	DTM63653B	HYB25D256400BC-7 rev B	Infineon	40599A rev A	1/14/03	2.5	Yes	64M x 4	EOL
+Avant Technology	AVM7228R38C5266K3-A	K4H560438D-TCB0 rev D	Samsung	BRDB45A rev A	2/11/03	2.5		64M x 4	EOL
+ATP Electronics	AB28L72P4SUB0S	K4H560438D-TCB0 rev D	Samsung	SB184P04L1	2/5/03	2.5	Yes	64M x 4	EOL
+Avant Technology	AVM7228R82C5266K1-A	MT46V64M4TG-75 B rev B	Micron	50-1416-01-A rev A	3/3/03	2.5	Yes	64M x 4	EOL
Apacer	AM1024LD72R266	K4H560438D-TCB0	Samsung	48.18121.012	3/26/03	2.5	Yes	128M x 4	EOL
+ATP Electronics	AB28L72T4SQA2	NT5DS64M4AT-7K	Nanya	SB184T04L2 rev 2	4/4/03	2.5		64M x 4	EOL
+Avant Technology	AVM7228R38C5266K3-A	MT46V64M4TG-75 C rev C	Micron	BRDB45A rev A	4/14/03	2.5		64M x 4	EOL
+Viking	VI4CR287224DYHL2	MT46V64M4TG-75 rev B	Micron	03-0291 rev A	4/7/03	2.5	Yes	64M x 4	EOL
+Buffalo	DD266L-RW1G/SD	K4H560438D-TCB0 rev D	Samsung	4D248EF-AA	6/5/03	2	Yes	64M x 4	
Samsung	M312L2828DT0-CB0	K4H510638D-TCB0	Samsung		7/15/03	2.5	Yes	64M x 4	
Samsung	M383L2828ET1-CB0	K4H510638E-TCB0	Samsung		08/5/03	2.5		64M x 4	
Samsung	M312L2828ET0-CA2	K4H510638E-TCA2	Samsung		08/5/03	2	Yes	64M x 4	
+TRS* Tele-Radio-Space GmbH	TRS21153	HYB25D256400BT-7 rev B	Infineon	M0531LA1 rev 1	8/28/03	2	Yes	64M x 4	
+Viking	VI4CR287224DYHL3	MT46V64M4TG-75 rev C	Micron	03-0291 rev A	10/21/03	2.5	Yes	64M x 4	
+Legend	L1272YC5-183HDD5A	HY5DU56422AS-H rev A	Hyundai	184RL rev 3	10/15/03	2.5	Yes	64M x 4	
+ATP Electronics	AB28L72P4SMB0S	K4H560438E-TCB0 rev E	Samsung	SB184P04L1	11/14/03	2.5	Yes	64M x 4	
+ATP Electronics	AB28L72U4SQB0S	K4H560438E-TCB0 rev E	Samsung	SB184U04L1	12/08/03	2.5		64M x 4	
+Legend	L1272YC5-RU1HDH5A	HY5DU12822AT-H rev A	Hyundai	DRR1U0818-A rev 1	12/12/03	2.5	Yes	64M x 8	
+Smart Modular Technologies	SM12872RDDR301BG-I	HYB25D256400BC-6 rev B	Infineon	P54G184NESZBRCD rev A	1/29/04	2	Yes	64M x 4	
+TRS	TRS21174	HYB25D512800AT-7 rev A	Infineon	M0529LA1 rev 1	2/2/04	2	Yes	64M x 8	
+Avant Technology	AVM7228R38C5266K3-A	NT5DS64M4BT-75B rev B	Nanya	BRDB45A rev A	4/13/04	2.5		64M x 4	
+Centon Electronics	TOP02-D026Z	MT46V64M8TG(P)-6T rev C	Micron	DR1G872-A	4/21/04	2.5	Yes	64M x 8	
+Dataram	DTM63686A	HYB25D256400BT-7 rev B	Infineon	40028A rev A	5/24/04	2		64M x 4	
+TRS	TRS21171	HYB25D256400BC-7 rev B	Infineon	M0533LA1 rev 1	6/10/04	2	Yes	64M x 4	

Registered, ECC, DDR266 DIMM Modules
1GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+TRS	TRS21203	HYB25D512400BE-7 rev B	Infineon	M0530LA1 rev 1	10/20/04	2	Yes	128M x 4	

Registered, ECC, DDR333 DIMM Modules
1GB Sizes (128Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Dataram	DTM63653H	HYB25D256400BC-6 rev B	Infineon	40599A rev A	6/16/04	2	Yes	64M x 4	
+Dataram	DTM63698B	HYB25D512400BE-7 rev B	Infineon	40581A rev A	7/14/04	2	Yes	128M x 4	
+Viking	VI4CR287224DBKL2	K4H560438E-GCB3 rev E	Samsung	0000972B	9/15/04	2.5	Yes	64M x 4	
+TRS	TRS21197	HYB25D256400CC-6 rev C	Infineon	M0533LA1 rev 1	11/17/04	2.5	Yes	64M x 4	
+Buffalo	DD333L-R1G/MD	MT46V64M8TG(P)-6T rev D	Micron	1D188EF-AA	3/15/05	2.5	Yes	64M x 8	
+Buffalo	DD333L-R1G/SB	K4H510838B-TCB3 rev B	Samsung	1D188EF-AA	3/18/05	2.5	Yes	64M x 8	
+Kingston	KVR333D4R25/1GI	HYB25D256400CC-6 rev C	Infineon	2025247-001.A00	07/27/05	2.5	Yes	64M x 4	
+Kingston	KVR333D4R25/1GI	K4H560438E-GCB3 rev E	Samsung	2025247-001.A00 na	08/04/05	2.5	Yes	64M x 4	
+Legend	L1272YC6-PPXSDM1B	K4H510438B-GCB3 rev B	Samsung	M312L6420G0 na	2/20/06	2.5	Yes	128M x 4	
Kingston	**KVR333D4R25/1GI**	**HYB25D256400CF-5 rev C**	**Infineon**	**2025247-001.A00 na**	**07-Jun-06**	**2.5**	**Yes**	**64M x 4**	

Modules shaded in blue are low profile.

Modules in bold text do not contain Lead.

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

Caution: *Some modules on this list may contain "stacked" DRAM parts. These parts may have thermal & physical limitations in some chassis configurations. It is advised to verify that your chassis configuration will support "stacked" parts before purchase.*

Server Board SHG2

Registered, ECC, DDR200 DIMM Modules
2GB Sizes (256Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M383L5628MT1-CA0	K4H1G0638M-TCA0	Samsung		7/15/03	2		128M x 4	

Registered, ECC, DDR266 DIMM Modules
2GB Sizes (256Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+TRS	TRS21155	HYB25D512400AT-7 rev A	Infineon	M0531LA1 rev 1	11/10/03	2	Yes	128M x 4	
+Dataram	DTM63663B	HYB25D512400AT-7 rev A	Infineon	40556 rev B	12/05/03	2	Yes	128M x 4	
+Dataram	DTM63689A	MT46V128M4FN(BN)-6 rev C	Micron	40020A rev A	6/14/04	2	Yes	128M x 4	
+TRS	TRS21218	HYB25D512400BE-7 rev B	Infineon	M0531LA1 rev 1	08/16/05	2	Yes	128M x 4	

Registered, ECC, DDR333 DIMM Modules
2GB Sizes (256Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Legend	L2572YC6-PPXSDM5B	K4H510438B-TCB3 rev B	Samsung	18-21040B rev B	3/24/05	2.5	Yes	128M x 4	
Kingston	**KVR333D4R25/2GI**	**K4H510438C-ZCB3 rev C**	**Samsung**	**2025294-001.A00 na**	**7/24/06**	**2.5**	**Yes**	**128M x 4**	

Modules shaded in blue are low profile.

Modules in bold text do not contain Lead.

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Caution: *Some modules on this list may contain "stacked" DRAM parts. These parts may have thermal & physical limitations in some chassis configurations. It is advised to verify that your chassis configuration will support "stacked" parts before purchase.*

Sales Information

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

Vendor Name	Web URL	Vendor Direct Sales Info
MSC Vertriebs GmbH	http://www.msc-ge.com	William Perrigo 49-7249-910-417 Fax: 49-7249-910-229 wpe@msc-ge.com
Netlist, Inc	http://www.netlistinc.com	Christopher Lopes 949.435.0025 tel 949.435.0031 fax sales@netlistinc.com
Peripheral Enhancements	http://www.peripheral.com/	
Samsung	http://www.korea.samsungsemi.com/locate/buy/list_na.html	For US customers go to: http://www.mymemorystore.com/
Silicon Tech	http://www.silicontech.com/contact/salescontacts.shtml	
Simple Tech	http://www.simpletech.com	Ron Darwish @ (949) 260-8230 or email @ Rdarwish@Simpletech.com
SMART Modular Technologies	http://www.smartm.com/channel	Gene Patino (949) 439-6167 Gene.Patino@Smartm.com
Swissbit	http://www.swissbit.com	Tony Cerreta Tel: 914-935-1400 x240 Fax: 914-935-9865 tony.cerreta@swissbitna.com
TechnoLinc Corporation	http://www.technolinc.com	David Curtis 510-445-7400 davidc@technolinc.com
TRS* Tele-Radio-Space GmbH	http:/www.certified-memory.com http://www.certified-memory.de	Vender Direct Sales Info: Andreas Gruendl Tel: +49.89.945532-34 Fax: +49.89.945532-41 Andreas.gruendl@trs-eu.com
Unigen	http://www.unigen.com	
Ventura Technology Inc	http://www.venturatech.com	Sam Lewis 760 599-0080 ext. 1
Viking InterWorks	http://www.vikinginterworks.com	
Virtium Technology Inc	http://www.virtium.com	Tod Skelton @ (949) 460-0020 ext. 146 or email @ tod.skelton@virtium.com
Legend	http://www.legend.com.au	Tel: 800-338-2361 Fax: 949-459-8577 orderdesk@vikingcomponents.com
Wintec Industries	http://www.wintecindustries.com	Tel 510-360-6300 Fax 510-770-9338

CMTL* (Computer Memory Test Labs)

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 Validation 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 bank 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 boxed processors. 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 boxed processor baseboard. 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® Server Board 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.