



Intel[®] Server Platform SR870BH2 Memory List Test Report Summary

Revision 41.0
November 2007

Revision History		
Date	Rev	Modifications
Sept / 03	0.5	Initial post-launch release for review.
Sept / 03	1.0	Initial Production release
Oct/03	2.0	Added Smart & TRS 1GB parts. (In shaded area)
Nov/03	3.0	Added TRS 256MB parts. (In shaded area)
Nov/03	4.0	Added Viking 256MB parts. Added Legend 512MB and 1GB parts. Added Smart 1GB and 2GB parts. (In shaded area)
Nov/03	5.0	Added Smart and ATP 1GB parts. (In shaded area)
Dec/03	6.0	Added Added TRS and Avant 512MB parts. Updated "Note" regarding mix-memory support. (In shaded area)
Jan/04	7.0	Added Ventura 512MB parts. Added Dataram 1GB and 2GB parts. Added Samsung 2G part. (In shaded area)
Feb/04	8.0	Added Legend 256MB parts. Added Dataram and ATP 512MB parts. Added Smart 1GB parts. Added Avant 2GB parts. (In shaded area).
Feb/04	9.0	Added Smart and Ventura 1GB parts. Added TRS 2GB parts. Removed Micron 1G parts. New CMTL address. (In shaded area)
April/04	10.0	Added Samsung 1G part. Added Micron 256MB, 512MB & 1G parts. (In shaded area)
May/04	11.0	Added TRS and Smart 1GB parts. (In shaded area)
Jun/04	12.0	Added Dane-Elec 256MB parts. Added Legend and ATP 512MB parts. Added Viking, Legend, Dataram, TRS and Smart 1GB parts. Added Dataram 2G part. (In shaded area)
Jun/04	13.0	Added Viking 256MB part. Samsung 512MB. Added Kingston 1GB part. (In shaded area)
July/04	14.0	Added Viking 512MB, 1GB and 2GB parts. Added Itaucom 512MB parts. (In shaded area)
Aug/04	15.0	Added Dataram and ATP 1GB parts. (In shaded area)
Sept/04	16.0	Added support for DDR333 modules. Added TRS 512MB parts. Added Itaucom and Smart 1GB parts. (In shaded area)
Sep/04	17.0	Added Infineon 256MB part. Added Smart 1GB parts. (In shaded area)
Oct/04	18.0	Added Legend 256MB parts. Added Viking 1GB parts. Added Dataram 2GB parts. (In shaded area)
Oct/04	19.0	Added Legend 512MB and 2GB parts.
Oct/04	20.0	Added Smart 512MB parts. Added TRS 1GB parts. (In shaded area)
Dec/04	21.0	Added Smart 1GB parts. (In shaded area)
Dec/04	22.0	Added Kingston 1GB parts. (In shaded area)
Jan/05	23.0	Added Buffalo 512MB parts. (In shaded area)
Feb/05	24.0	Added Infineon 512MB and 2GB parts. Added Smart 2GB parts. (In shaded area)
Feb/05	25.0	Added Buffalo 512MB parts. (In shaded area)
Mar/05	26.0	Added Dataram 512MB parts. Added Buffalo 1GB parts. (In shaded area)
Apr/05	27.0	Added 1GB Kingston and 2GB Micron parts. (In shaded area)
May/05	28.0	Added Viking 1GB parts. (In shaded area)
May/05	29.0	Updated contact information.
Aug/05	30.0	Added Kingston 512MB and 1GB parts. Added Hynix and Micron 512MB parts. Added Infineon and Hynix 1GB parts. Added TRS and Legacy 2GB parts. (In shaded area)
Sept/05	31.0	Added Legacy 1GB part. (In shaded area)
Oct/05	32.0	Added Legacy 1GB part. Added Smart 2GB part. (In shaded area)
Jan/06	33.0	Added Kingston 1GB parts. Added Legend 1GB part. (In shaded area)
Feb/06	34.0	Added Smart 512MB and 1GB parts. Added Legend 512MB, 1GB and 2GB parts. (In shaded area)
Mar/06	35.0	Added Infineon 512MB and 1GB parts. Added Samsung 1GB and 2GB parts. (In shaded area)
June/06	36.0	Infineon name change to Qimonda effective May 1 st , 2006. Added Smart 1G and 2G parts. (In shaded area)
Aug/06	37.0	Added Viking 1GB part. Added Viking and Kingston 2GB parts. (In shaded area)
Oct/06	38.0	Added Legacy 2GB part. (In shaded area)
Apr/07	39.0	Updated vendor contact information. Added Kingston 512MB part. (In shaded area)

Revision History		
Date	Rev	Modifications
May/07	40.0	Added Kingston 2GB part. (In shaded area)
Nov/07	41.0	Additional memory part added (in shaded area).

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The Intel® Server Platform SR870BH2 may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

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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 Platform SR870BH2. 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* Server 2003 Enterprise Edition 64bit 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.

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

Qualified Memory for the Intel® Server Platform SR870BH2

The memory module on the Server Platform SR870BH2 has 8 DIMM sites on the main board, which can hold up to 16 GB of Registered DDR266 or DDR333 memory using eight 2GB 72-bit DIMM modules. The following memory features are supported:

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

The memory control Subsystem in the 870 chip set supports memory scrubbing, single-bit error correction and multiple-bit error detection and the Intel® Single Device Data Correction feature. Memory can be implemented with either single sided (one row) or double-sided (two row) DIMMs.

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

DDR266 Registered DRAM Module Configurations for Cas Latency 2					
DIMM Capacity	DIMM Organization	DRAM Density	DRAM Organization	# DRAM Devices/rows/Banks	# Address bits rows/Banks/column
256MB	32M x 72	64Mbit	16M x 4	36/2/4	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	128Mbit	32M x 4	36/2/4	12/2/11
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
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 Platform SR870BH2 Technical Product Specification*.

The following tables list DIMM devices known to be compatible with the Intel Server Platform SR870BH2. 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.

Note: Intel does not test all possible combinations of mixed memory modules within the same server system. Functionality issues may occur if mixed memory types are installed in the same server system. Intel recommends that memory modules of identical size, type, banking and stacking technology, and vendor are installed in each server system. Customers who choose to use mixed memory module configurations assume responsibility for ensuring that these configurations are compatible and tested

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 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 Platform SR870BH2
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	M312L3313ETS-CA2		Samsung		5/23/03			(16Mx8)*18	
Samsung	M312L3310ETS-CA2		Samsung		5/23/03			(32Mx4) *18	
Samsung	M312L3310ETS-CB0		Samsung		4/28/03			(32Mx4) *18	
Samsung	M312L3223ETS-CB0		Samsung		4/28/03			(32Mx8) *9	
~ Qimonda (Infineon)	HYS72D32500GR-7-B	HYB25D256800BT-7	~ Qimonda (Infineon)		4/28/03	2		(32Mx8)*9	
+TRS* Tele-Radio-Space GmbH	TRS21150	HYB25D256800BT-7 rev B	~ Qimonda (Infineon)	M0529LA1 rev 1	10/3/03	2	Yes	(32Mx8)*9	
+Viking	VI4CR327228DTHL3	MT46V32M8TG-75 rev C	Micron	0000905A	10/21/03	2.5	Yes	(32Mx8)*9	
Samsung	M312L3223ETS-CA2	K4H560838E-TCCA2	Samsung		11/14/03	2		(32Mx8)*9	
+Legend	L3272YC5-RU1HDC5B	HY5DU56822BT-J rev B	Hyundai	DRR1U0818-A rev 1	1/21/04	2.5	Yes	(32Mx8)*9	
Micron	MT9VDDT3272G-265G3	MT46V32M8-6T G	Micron		4/6/04	2.5	Yes	(32Mx8)*9	
+Dane-Elec	ODLD266R072325I-1MC	MT46V32M8TG(P)-6T rev C	Micron	DR1G872-A rev A	5/20/04	2.5	Yes	(32Mx8)*9	
+Viking	VI4CR327228DTHL4	MT46V32M8TG(P)-6T rev G	Micron	0000985A	6/4/04	2.5	Yes	(32Mx8)*9	
~ Qimonda (Infineon)	HYS72D32300GBR-7-C		~ Qimonda (Infineon)		9/9/04			(32Mx8)*9	

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	9/27/04	2.5	Yes	(32Mx8)*9	

Modules shaded in blue are low profile

(+) 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/>

~ Effective May 1st, 2006, Infineon memory products will be known as Qimonda

Server Platform SR870BH2
Registered, ECC, DDR266 DIMM Modules
512 MB Sizes (64Mx72)

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Samsung	M312L6420ETS-CB0		Samsung		4/28/03			(64M x 4)*18	
~ Qimonda (Infineon)	HYS72D64500GR-7-B	HYB25D256400BT-7	~ Qimonda (Infineon)		8/15/03	2		(64M x 4)*18	
+Viking	VI4CR647228DTHL4	MT46V32M8TG-75 rev C	Micron	0000905A	9/11/03	2.5	Yes	(32M x 8)*18	
+TRS* Tele-Radio-Space GmbH	TRS21152	HYB25D256800BT-7 rev B	~ Qimonda (Infineon)	M0529LA1 rev 1	9/11/03	2	Yes	(32M x 8)*18	
+Legend	L6472YC5-182HDD5A	HY5DU56422AT-K rev A	Hyundai	184RL rev 2	10/31/03	2.5	Yes	(64M x 4)*18	
+TRS	TRS21151	HYB25D256400BT-7 rev B	~ Qimonda (Infineon)	M0530LA1 rev 1	12/03/03	2	Yes	(64M x 4)*18	
+Avant Technology	AVM7264R38C5266K0-A	NT5DS64M4BT-75B rev B	Nanya	50-1415-01-B rev B	12/09/03	2.5	Yes	(64M x 4)*18	
+Ventura Technology Group	D52WVK25SV	K4H560838E-TCB3 rev E	Samsung	V208	12/15/03	2.5	Yes	(32M x 8)*18	
+Dataram	DTM63641E	HYB25D256400BT-7 rev B	~ Qimonda (Infineon)	40581A rev A	1/07/04	2.5	Yes	(64M x 4)*18	
+ATP Electronics	AB64L72Q8S8B0S	K4H560838E-TCB3 rev E	Samsung	SB184Q08L1	1/15/04	2.5	Yes	(32M x 8)*18	
Micron	MT18VDDT6472G-265G3	MT46V64M4-75 G	Micron		4/6/04	2.5	Yes	(64M x 4)*18	
+Legend	L6472YC5-RU1HDC5B	HY5DU56822BT-J rev B	Hyundai	DRR1U0818-A rev 1	5/12/04	2.5	Yes	(32M x 8)*18	
+ATP Electronics	AB64L72Q8S8B0S	K4H560838F-TCB3 rev F	Samsung	SB184Q08L1 rev 1	5/26/04	2.5	Yes	(32M x 8)*18	
Samsung	M312L6420FTS-CB0	K4H560438F-TCB0	Samsung		6/21/04	2.5	Yes	(64Mbx4)*18	
+Viking	VI4CR647228DTHL5	MT46V32M8TG(P)-6T rev G	Micron	0000985A	6/14/04	2.5	Yes	(32M x 8)*18	
ITAUCOM	512E2665R24	ICM4L560407-65	Micron	0269 A	6/21/04	2.5	Yes	(64Mx4)*18	
+TRS	TRS21202	HYB25D256400CE-7 rev C	~ Qimonda (Infineon)	M0530LA1 rev 1	8/5/04	2	Yes	(64Mx4)*18	
+Smart Modular Technologies	SM6472RDDR325LP-S	K4H560438E-TCB0 rev E	Samsung	M312L3310ETS	10/11/04	2.5	Yes	(64Mx4)*18	
~ Qimonda (Infineon)	HYS72D64300GBR-7-C		~ Qimonda (Infineon)		1/26/05		Yes	(64Mx4)*18	
+Dataram	DTM63662C	HYB25D256400CE-7 rev C	~ Qimonda (Infineon)	40581A rev A	2/17/05	2	Yes	(64Mx4)*18	
Hynix	HYMD264G726D4M-H Module date code: ww0447		Hynix		8/05/05			(64Mbx4)*18	

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

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
Micron	MT9VDDT6472G-265D2 Component date code: ww0510		Micron		8/05/05			(64Mbx8)*9	
+Smart Modular Technologies	SG6472RDDR3H1LPIC	HYB25D512800CE-6 rev C	~ Qimonda (Infineon)	PG52G184NEBZ 6RCL rev A	1/24/06	2.5	Yes	(64Mbx8)*9	

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

Manufacturer	Part Number	DRAM Part Number	DRAM Vendor	PCB Part Number	Date	CAS Latency	Low Profile	DRAM Organization	EOL
+Legend	L6472YC6-RU1HDC5D	HY5DU56822DT-J rev D	Hyundai	DDR1U0818-A1 rev 1	10/4/04	2.5	Yes	(32M x 8)*18	
+Buffalo	DD333L-R512/SF	K4H560838F-TCB3 rev F	Samsung	1D188EF-AA	1/14/05	2.5	Yes	(32M x 8)*18	
+Buffalo	DD333L-R512/MG	MT46V32M8TG(P)-6T rev G	Micron	1D188EF-AA	1/31/05	2.5	Yes	(32M x 8)*18	
+Kingston	KVR333S4R25/512I	K4H560438E-GCB3 rev E	Samsung	2025161-001.B00 na	07/12/05	2.5	Yes	(64M x 4)*18	
+Kingston	KVR333S4R25/512I	HYB25D256400CC-6 rev C	~ Qimonda (Infineon)	2025161-001.B00	07/07/05	2.5	Yes	(64M x 4)*18	
+Legend	L6472YC6-RU1HDHSC	HY5DU12822CTP-J rev C	Hynix	DDR1U0818 rev A	1/20/06	2.5	Yes	(64M x 8)*9	
~ Qimonda (Infineon)	HYS72D64301HBR-6-C	HYB25D512800CF-6	~ Qimonda (Infineon)		2/6/06	2.5	Yes	(64M x 8)*9	
Kingston	KVR333S4R25/512I	HYB25D256400CF-5 rev C	Qimonda		3/28/07	2.5	Yes	(64M x 4)*18	

Modules shaded in blue are low profile

(+) 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/>

~ Effective May 1st, 2006, Infineon memory products will be known as Qimonda

Server Platform SR870BH2
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		5/23/03	2		(64Mx4)*36	
Samsung	M312L2828ET0-CB0		Samsung		6/13/03			(64Mx4)*36	
~ Qimonda (Infineon)	HYS72D128521GR-7-B	HYB25D256400BT-7	~ Qimonda (Infineon)		4/28/03	2		(64Mx4)*36	
+Smart Modular Technologies	SM12872RDDR3H1LP-S	K4H510638D-TCB0 rev D	Samsung	M312L2828T0	9/11/03	2.5	Yes	(64Mx4)*36	
+TRS* Tele-Radio-Space GmbH	TRS21153	HYB25D256400BT-7 rev B	~ Qimonda (Infineon)	M0531LA1 rev 1	9/24/03	2	Yes	(64Mx4)*36	
+Smart Modular Technologies	SM12872RDDR301LP-I	HYB25D256400BT-7 rev B	~ Qimonda (Infineon)	P54G184NESZK RCN rev A	11/7/03	2	Yes	(64Mx4)*36	
+Legend	L1272YC5-183HDD5A	HY5DU56422AS-H rev A	Hyundai	184RL rev 3	10/27/03	2.5	Yes	(64Mx4)*36	
Elpida	EBD10RD4ABFA-7B		Elpida		9/2/03			(128Mx4)*18	
~ Qimonda (Infineon)	HYS72D128320GBR-7-B	HYB25D256400BC-7	~ Qimonda (Infineon)		9/2/03	2	Yes	(64Mx4)*36	
Samsung	M312L2828ET0-CA2	K4H510638E-TCA2	Samsung		11/14/03	2	Yes	(64Mx4)*36	
+Smart Modular Technologies	SM12872RDDR301LP-I	HYB25D256400BT-7 rev B	~ Qimonda (Infineon)	P54G184NESZK RCN rev A	11/07/03	2	Yes	(64Mx4)*36	
+ATP Electronics	AB28L72P4SMB0S	K4H560438E-TCB0 rev E	Samsung	SB184P04L1	11/25/03	2.5	Yes	(64Mx4)*36	
+Dataram	DTM63653B	HYB25D256400BC-7 rev B	~ Qimonda (Infineon)	40599A rev A	12/19/03	2	Yes	(64Mx4)*36	
+Smart Modular Technologies	SM12872RDDR301BG-I	HYB25D256400BC-6 rev B	~ Qimonda (Infineon)	P54G184NESZB RCD rev A	1/23/04	2	Yes	(64Mx4)*36	
+Smart Modular Technologies	AM12872RDDR325	K4H560438D-TCB0 rev D	Samsung	P54G184NESZK RCN rev A	2/11/04	2.5	Yes	(64Mx4)*36	
+Ventura Technology Group	D54WPK28SV	K4H560438E-TCB0 rev E	Samsung	V213	1/27/04	2.5		(64Mx4)*36	
Samsung	M312L2920BTS-CB0		Samsung		4/6/04			(128Mbx4)*18	
Micron	MT36VDDF12872G-265G3		Micron		4/6/04			(64Mbx4)*36	
+TRS	TRS21174	HYB25D512800AT-7 rev A	~ Qimonda (Infineon)	M0529LA1 rev 1	5/4/04	2	Yes	(64Mx8)*18	
+Smart Modular Technologies	SM12872RDDR301BGA S	K4H560438E-GCB3 rev E	Samsung	P54G184NESZB RCD	5/6/04	2	Yes	(64Mx4)*36	

**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
+Viking	VI4CR287228ETHL1	MT46V64M8TG(P)-75 rev D	Micron	0000985A	6/1/04	2.5	Yes	(64Mx8)*18	
+Legend	L1272YC5-RU1HDH5A	HY5DU12822AT-H rev A	Hyundai	DRR1U0818-A rev 1	5/24/04	2.5	Yes	(64Mx8)*18	
+Dataram	DTM63653H	HYB25D256400BC-6 rev B	~ Qimonda (Infineon)	40599A rev A	5/14/04	2	Yes	(64Mx4)*36	
+TRS	TRS21171	HYB25D256400BC-7 rev B	~ Qimonda (Infineon)	M0533LA1 rev 1	5/10/04	2	Yes	(64Mx4)*36	
+Smart Modular Technologies	SM12872RDDR301BG AS	K4H560438E-GCB3 rev E	Samsung	P54G184NESZB RCD	5/6/04	2	Yes	(64Mx4)*36	
Kingston	KVR266X72RC25/1024	K4H510438B-TCB0 rev B	Samsung	2025127-001.A00	6/9/04	2.5	Yes	(128Mx4)*18	
+Viking	VI4CR287228ETHL2	MT46V64M8TG(P)-6T rev C	Micron	0000985A	6/26/04	2.5	Yes	(64Mx8)*18	
+Dataram	DTM63698B	HYB25D512400BE-7 rev B	~ Qimonda (Infineon)	40581A rev A	7/20/04	2	Yes	(128Mx4)*18	
+ATP Electronics	AB28L72Q8SHB0S	K4H510838B-TCB3 rev B	Samsung	SB184Q08L1 rev 1	7/8/04	2.5	Yes	(64Mx8)*18	
ITAUCOM	01GE2665R24	MT46V64M4TG-75 rev C	Micron	0232 A	7/29/04	2.5	Yes	(64Mx4)*36	
+Smart Modular Technologies	SM12872RDDR301BGI C	HYB25D256400CC-6 rev C	~ Qimonda (Infineon)	P54G184NESZB RCD	8/11/04	2	Yes	(64Mx4)*36	
+Smart Modular Technologies	SX12872RDDR308BTI B	HYB25D512800BE-6 rev B	~ Qimonda (Infineon)	P52G184NEBZ6 RCL rev B	9/2/04	2	Yes	(64Mx8)*18	
+TRS	TRS21203	HYB25D512400BE-7 rev B	~ Qimonda (Infineon)	M0530LA1 rev 1	10/20/04	2	Yes	(128Mx4)*18	
+Smart Modular Technologies	SX12872RDDR302LPI B	HYB25D512400BE-7 rev B	~ Qimonda (Infineon)	P52G184NESZ6 G001 rev A	11/23/04	2	Yes	(128Mx4)*18	
+Kingston	KVR266D4R25/1GI	HYB25D256400BT-7 rev B	~ Qimonda (Infineon)	2025148-001.A00	3/18/05	2.5	Yes	(64Mx4)*36	
~ Qimonda (Infineon)	HYS72D128300GBR-7-B Component date code: ww0438		~ Qimonda (Infineon)		4/28/05			(128Mbx4)*18	
Hynix	HYMD512G726B4M-H Module Date Code: ww0452		Hynix		8/05/05			(128Mbx4)*18	
+Smart Modular Technologies	SG12872RDDR3H1LPI C	HYB25D512400CE-6 rev C	~ Qimonda (Infineon)	PG52G184NESZ6G001 rev A	2/3/06	2.5	Yes	(128Mbx4)*18	
Smart Modular Technologies	SG12872RDDR308BT SC	K4H510838C-UCCC rev C	Samsung	PG52G184NEB Z6RCL rev A	05/23/06	2.5	Yes	(64Mx4)*36	

**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
+Viking	VI4CR287224DBKL2	K4H560438E-GCB3 rev E	Samsung	0000972B	9/13/04	2.5	Yes	(64Mx4)*36	
+TRS	TRS21197	HYB25D256400CC-6 rev C	~ Qimonda (Infineon)	M0533LA1 rev 1	10/13/04	2.5	Yes	(64Mx4)*36	
+Buffalo	DD333L-R1G/SB	K4H510838B-TCB3 rev B	Samsung	1D188EF-AA	2/22/05	2.5	Yes	(64Mx8)*18	
+Viking	VI4CR287228ETKL1	MT46V64M8TG-6T rev D	Micron	0000985A	4/25/05	2.5	Yes	(64Mx8)*18	
+Kingston	KVR333D4R25/1GI	HYB25D256400CC-6 rev C	~ Qimonda (Infineon)	2025247-001.A00	07/15/05	2.5	Yes	(64Mx4)*36	
+Kingston	KVR333D4R25/1GI	K4H560438E-GCB3 rev E	Samsung	2025247-001.A00 na	08/01/05	2.5	Yes	(64Mx4)*36	
+Legacy Electronics Inc.	89B6MDZR-1NDG	K4H510438C-ZCB3 rev C	Samsung	LE18DDF1844R rev A	9/2/05	2.5	Yes	(128Mbx4)*18	
+Legacy Electronics Inc.	89L6MDZR-1PDG	BGA128MX4DDRNC na	Legacy	LE18DDF1844R rev A	9/23/05	2.5	Yes	(128Mbx4)*18	
+Legend	L1272YC6-PPXSDM1B	K4H510438B-GCB3 rev B	Samsung	M312L6420G0 na	1/5/06	2.5	Yes	(128Mbx4)*18	
+Legend	L1272YC6-PPXSDD2E	K4H560438E-GCB3 rev E	Samsung	DR2G472B na	1/27/06	2.5	Yes	(64Mx4)*36	
~ Qimonda (Infineon)	HYS72D128321HBR-6-C	HYB25D512800CF-6	~ Qimonda (Infineon)		2/6/06	2.5	Yes	(64M x 8) *18	
~ Qimonda (Infineon)	HYS72D128300HBR-6-C	HYB25D512400CF-6	~ Qimonda (Infineon)		2/6/06	2.5	Yes	(128Mbx4)*18	
Samsung	M312L2920CZ3-CB3	K4H510438C-ZCB3	Samsung		2/6/06	2.5	Yes	(128Mbx4)*18	
Samsung	M312L2923CZ3-CB3	K4H510838C-ZCB3	Samsung		2/6/06	2.5	Yes	(64M x 8) *18	
Viking	VR4CR287228ETKL2	HY5DU12822CTP-D43 rev C	Hynix	0001060A rev A	8/2/06	2.5	Yes	(64M x 8) *18	

Modules shaded in blue are low profile

(+) 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/>

~ Effective May 1st, 2006, Infineon memory products will be known as Qimonda

Server Platform SR870BH2
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
~ Qimonda (Infineon)	HYS72D256520GR-7-A	HYB25D512400AT-7	~ Qimonda (Infineon)		4/28/03	2		(128Mx4)*36	
Samsung	M312L5628MT0-CB0	K4H1G0638M-TCB0	Samsung		6/4/03	2.5		(128Mx4)*36	
+Smart Modular Technologies	SM25672RDDR301LP-I	HYB25D512400AT-7 rev A	~ Qimonda (Infineon)	P54G184NES ZKRCN rev A	10/14/03	2	Yes	(128Mx4)*36	
Elpida	EBD21RD4ABNA-7B				9/2/03			(128Mx4)*36	
+Dataram	DTM63663B	HYB25D512400AT-7 rev A	~ Qimonda (Infineon)	40556 rev B	12/26/03	2	Yes	(128Mx4)*36	
Samsung	M312L5628BT0-CB0	HYB25D512400AT-7 rev A	Samsung		1/9/04			(128Mx4)*36	
+Avant Technology	AVM7256R83C5266K1-A	MT46V128M4TG-75 rev C	Micron	50-1416-01-A rev A	1/12/04	2.5	Yes	(128Mx4)*36	
+TRS	TRS21155	HYB25D512400AT-7 rev A	~ Qimonda (Infineon)	M0531LA1 rev 1	2/2/04	2	Yes	(128Mx4)*36	
+Dataram	DTM63689A	MT46V128M4FN(BN)-6 rev C	Micron	40020A rev A	5/18/04	2	Yes	(128Mx4)*36	
+Viking	VI4CR567224EYHL3	K4H510438B-TCB3 rev B	Samsung	03-0307 rev B	6/16/04	2.5	Yes	(128Mx4)*36	
Kingston	KVR266X72RC25/2G	K4H510438B-TCB0 rev B	Samsung	2025148-001.A00	12/3/04	2.5	Yes	(128Mx4)*36	
~ Qimonda (Infineon)	HYS72D256320GBR-7-B	Component date code must be WW0420 or later.	~ Qimonda (Infineon)		1/26/05		Yes	(128Mx4)*36	
Micron	MT36VDDF25672G-265D2	Module date code must be WW0442 or later.	Micron		3/24/05		Yes	(128Mx4)*36	
+TRS	TRS21218	HYB25D512400BE-7 rev B	~ Qimonda (Infineon)	M0531LA1 rev 1	07/25/05	2	Yes	(128Mx4)*36	
Smart Modular Technologies	SG25672RDDR3H1BGS C	K4H510438C-ZCB3 rev C	Samsung	PG54G184NE SZB1RF rev A	05/01/06	2.5	Yes	(128Mx4)*36	
Viking	VR4CR567224EYHL1	HY5DU12422CTP-H rev C	Hyundai	0001073A rev A	8/9/06	2.5	Yes	(128Mx4)*36	

**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
+Dataram	DTM63680F	HYB25D512400BF-6 rev B	~ Qimonda (Infineon)	40020A rev A	9/16/04	2.5	Yes	(128Mx4)*36	
+Legend	L2572YC6-PPXSDM5B	K4H510438B-TCB3 rev B	Samsung	18-21040B rev B	9/30/04	2.5	Yes	(128Mx4)*36	
+Smart Modular Technologies	SM25672RDDR6H2BGA I	HYB25D512400BC-6 rev B	~ Qimonda (Infineon)	P54G184NES ZB1RF rev A	1/25/05	2.5	Yes	(128Mx4)*36	
+Legacy Electronics Inc.	8AB6MDGM-1NDG	K4H510438C-ZCB3 rev C	Samsung	LE36DDDF1844 RRF rev B	08/16/05	2.5	Yes	(128Mx4)*36	
+Smart Modular Technologies	SG25672RDDR6H2BGS C	K4H510438C-ZCB3 rev C	Samsung	PG54G184NE SZB1RF rev A	9/19/05	2.5	Yes	(128Mx4)*36	
+Kingston	KVR333D4R25/2GI	MT46V128M4FN-6 rev D	Micron	2025294-001.A00 na	1/12/06	2.5	Yes	(128Mx4)*36	
+Kingston	KVR333D4R25/2GI	HYB25D512400BC-6 rev B	~ Qimonda (Infineon)	2025294-001.A00	1/17/06	2.5	Yes	(128Mx4)*36	
+Legend	L2572YC6-PPXSMDMB	K4H510438B-TCB3 rev B	Samsung	18-21040B rev B (0403)	2/1/06	2.5	Yes	(128Mx4)*36	
Samsung	M312L5720CZ3-CB3	K4H510438C-ZCB3	Samsung		2/6/06	2.5	Yes	(128Mx4)*36	
Samsung	M312L5628CU0-CB0	K4H1G0638C-UCB0	Samsung		2/12/06	2.5	Yes	(128Mx4)*36	
Kingston	KVR333D4R25/2GI	K4H510438C-ZCB3 rev C	Samsung	2025294-001.A00 na	7/31/06	2.5	Yes	(128Mx4)*36	
Legacy Electronics Inc.	8AL6MDGM-1PDG	BGA128MX4DDRNC	Legacy	LE36DDDF1844 RRF rev B	8/16/06	2.5	Yes	(128Mx4)*36	
Kingston	KVR333D4R25/2GI	HYB25D512400CF-5 rev C	Qimonda	2025294-001.A00 na	4/19/07	2.5	Yes	(128Mx4)*36	
Kingston	KVR333D4R25/2GI	HYB25D512400BF-5 rev B	Qimonda	2025294-001.A00 na	10/4/07	2.5	Yes	(128Mx4)*36	

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~ Effective May 1st, 2006, Infineon memory products will be known as Qimonda

Sales Information

Vendor Name	Web URL	Vendor Direct Sales Info
ATP Electronics	http://www.atpinc.com/	Tel (1) 408-732-5000, ext 5858 Fax 408-732-5893 sales@atpusa.com
ATP Electronics -- Taiwan Inc.	http://www.atpinc.com/	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.itauc.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	
MSC Vertriebs GmbH	http://www.msc-ge.com	William Perrigo 49-7249-910-417 Fax: 49-7249-910-229 wpe@msc-ge.com

Vendor Name	Web URL	Vendor Direct Sales Info
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	Vendor Direct Sales Info: Andreas Gründl, Pho.: +49(0)89/94553234, Fax.: +49(0)89/94553293, agruendl@trs-space.de
Unigen	http://www.unigen.com	
Ventura Technology Inc	http://www.venturatech.com	Sam Lewis 760 724-8700 ext. 103
Viking InterWorks	http://www.vikinginterworks.com	Adrian Proctor Tel: 949-643-7255 adrian.proctor@sanmina-sci.com
Virtium Technology Inc	http://www.virtium.com	Tod Skelton @ (949) 460-0020 ext. 146 or email @ tod.skelton@virtium.com
Wintec Industries	http://www.wintecindustries.com	Tel 510-360-6300 Fax 510-770-9338

CMTL* (Computer Memory Test Labs)

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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.

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