



Enterprise Server Group  
Intel<sup>®</sup> ALTServer Platform  
Tested Memory List

*December, 1998*



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**Please Note:** *SIMM devices with gold contacts should NOT be placed into SIMM 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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<b>Revision History</b>		
<b>Date</b>	<b>Rev</b>	<b>Modifications</b>
December 11, 98	.5	Initial release for review
December 15, 98	1.0	Release Doc

## Introduction

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The following Tables list the memory modules that have been Intel tested and approved for use with the ALTServer Platform board set. The ALTServer Platform supports the following memory features:

- 72-pin SIMM modules
- Support for up to 256MB (minimum of 2MB)
- Support for SIMM sizes of 1, 2,4,8,16,& 32 MBs of fast page, parity memory.

Memory features of the ALTServer Platform board set are detailed in the ALTServer Baseboard & Platform *Technical Product Summary* (Order Number 281657).

Testing of memory modules occurs on three levels: Level 1, Level 2, and Level 3. Upon the completion of testing, the memory module is designated at the level at which it has been tested (this is indicated in the third column of the table). The definitions for these testing levels are as follows:

### Qualified SIMM Memory for the ALTServer Platform

The following tables list SIMM devices known to be compatible with the Intel ALTServer Platform. Intel recommends that SIMMs listed as *Advanced* be used to establish reliable system operation. SIMM devices not listed or listed as *Paper Qualification* or *Basic Qualification* can be used; but, in the event of unreliable system operation, the SIMM devices should be replaced with functionally tested SIMMs to determine whether the SIMM devices are causing the problem. 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. The memory devices shown are categorized according to three levels of qualification:

**Advanced Tested:** The SIMM device has been electrically tested by CMTL<sup>1</sup> or Intel engineering with voltage margins and various temperature margins for a total of 48 to 96 hours. The SIMM device is known to be compatible with the ALTServer Platform. CMTL test engineers also perform the same rigorous environmental testing procedures performed by Intel test engineering. The CMTL Gold testing procedure is utilized and adhered to. The SIMM devices listed with the CMTL web site is considered to be representative of an independent memory testing lab utilizing Intel memory testing policies and procedures.

**Basic Tested:** The SIMM device has been analyzed by the data sheet and has been electrically tested at room temperature. A small sample (normally 8 SIMMs) has been tested by either an Intel authorized distributor, CMTL, or the SIMM manufacturer across standard voltage and room temperature on the ALTServer Platform for 24 hours. CMTL follows the Silver testing procedure for this particular level. These devices are listed by Intel as a convenience to Intel's general customer base, but neither CMTL or Intel make any representations or warranties whatsoever regarding quality, reliability, functionality or compatibility of these devices on the ALTServer Platform.

**Paper Qualified:** The SIMM specification sheet has been examined by either Intel engineering, an Intel compliant distributor, memory test lab engineering, or the memory vendors. This phase must be done before acceptance into CMTL. This paper examination is a review of critical timings, electrical characteristics, timing requirements and environmental requirements in regards to capacitance, refresh rates, and packaging requirements in order to see if the SIMM meets the specifications of the ALTServer Platform. These devices are listed by Intel as a convenience to Intel's general customer

base, but Intel does not make any representations or warranties whatsoever regarding quality, reliability, functionality or compatibility of these devices.

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<sup>1</sup> CMTL is a leading memory testing organization responsible for testing a broad range of memory products. A memory product, which receives an “ADVANCED” level of testing 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 equipment and a procedure as defined by Intel’s various functional testing levels. Testing is performed on a number of Intel ALTServer Platforms.

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## ALTServer Platform Tested Memory List

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Shading indicates the latest additions to the list.  
 The levels of testing are defined in the Introduction of this document.

Unbuffered ECC, 60NS, FPM					
Manufacturer	Part #	Level	Intel Part #	SIMM Type	Size
<b>16 MB Memory</b>					
<b>32 MB Memory</b>					
Mitsubishi	MH4M36DNYJ-6	Advanced	N/A	8Mx36	32MB
Memory Time	32M36B18C-A	Advanced	N/A	8Mx36	32MB