



# Enterprise Server Group

## Intel<sup>®</sup> C440GX+ DP Server Board

### Supported Hardware/Operating Systems

*Version 1.1*

*July, 1999*





## Revision History

Revision	Revision History	Date
Rev 1.0	Initial release of the C440GX+ DP Server Supported Hardware/Operating System list.	7/99
Rev 1.1	Added regression testing results from BIOS3.0, PEP ECO which included new hardware and operating systems.	7/99

THIS TEST REPORT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE OR OTHER MATERIALS REFERENCED HEREIN.

Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, reference [www.intel.com/procs/perf/limits.htm](http://www.intel.com/procs/perf/limits.htm) or call (U.S.) 1-800-628-8686 or 1-916-356-3104. The Intel® C440GX+ DP Server Board L440GX+ Server Board 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. The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty.

Nothing in this document constitutes a guarantee, warranty or license to any intellectual property right, express or implied, by estoppel or otherwise. Intel makes no representations or warranties and specifically disclaims all liability as to this performance brief, with respect to sufficiency, reliability, accuracy, completeness or usefulness of same. Intel retains the right to make changes to its test specifications at any time, without notice. Furthermore, Intel makes no commitment to update the information contained in this performance brief, and Intel reserves the right to make changes at any time, without notice, and without limitation, to the Intel products or specifications referenced herein. Intel products are not intended for use in medical, life saving, or life sustaining applications. The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty.

Copyright © Intel Corporation 1999. \*Third-party brands and names are the property of their respective owners.

## Table of Contents

<b>1</b>	<b>SUPPORTED HARDWARE/OPERATING SYSTEM TESTING.....</b>	<b>1</b>
1.1	OVERVIEW .....	1
<b>2</b>	<b>SUPPORTED HARDWARE/OPERATING SYSTEM CONFIGURATIONS.....</b>	<b>3</b>
2.1	STORAGE DEVICES .....	3
2.2	HARD DISK CONTROLLERS, VIDEO CARDS.....	4
2.3	NETWORK INTERFACE CARDS .....	5
2.4	MODEMS, SOUND CARDS, MONITORS, PRINTERS, FDD'S.....	6
2.5	MOUSE, KEYBOARDS .....	7

# 1 Supported Hardware/Operating System Testing

---

## 1.1 Overview

The selection of products in the following tables coincide with industry trends for the period of time the system was undergoing testing. As the market segment shifts, changes in testing procedure may occur including the addition of new equipment, updated versions of operating systems, or alterations in the configuration of product and operating system. This document, therefore, is subject to change in order to accommodate any updates and to clearly define testing.

To identify any potential problems, all Intel® platforms undergo rigorous testing using a selection of operating systems and adapter cards. These peripherals and operating systems have been chosen according to their high-level of acceptance within the industry and their ability to stress the system. The test suites performed on the system have been designed to validate data paths, chipset functionality, system functionality, device drivers, and operating system functionality and include tests developed by OS vendors, third-party developers, and Intel hardware and software engineering teams.

The C440GX+ Supported Hardware/Operating System list reflects the peripherals and operating systems that were evaluated through Intel internal testing of the C440GX+ DP Server board. This list has been compiled from the test suites of Intel's Enterprise Server Group's Platform Validation Lab (PVL). The following key specifics define the Hardware/Operating System configurations evaluated and the level of evaluation. A blank box indicates that the Hardware/Operating System configuration has not been evaluated by Intel.

### Level 1 Testing:

This represents a high-level of testing; involving many hours of continuous running with varying loads of stress placed on the server. Testing at this level involves an in-depth series of test suites, focusing on board set validation. The focus in Level 1 testing is on the validation of onboard features and baseboard functionality with add-in equipment.

The systems are prepared with a complex configuration during this testing. The goal of this test is to stress the system at the highest level. All the PCI and ISA slots are filled with the SCSI/NIC adapters and six hard drives are used to run over ten different test suites. Multiple clients (minimum of thirteen) are connected to each NIC in the server and a minimum of 39 clients are connected to the whole system. Tests are run between 36 and 144 hours with varying loads placed on the server system using different test suites and performing different activities.

The peripherals utilized in Level 1 testing are noted in the following tables with the number "1", signifying that the particular configuration of hardware/operating system was tested under stress and operated with no failures during Intel's internal testing.

## **Level 2 Testing:**

Testing at this level is less intensive than at Level 1. The tests are shorter in duration, and the focus is on utilizing a wide variety of add-in cards and hardware and verifying their functionality in the system. To encompass this quantity of hardware, testing time is limited. The duration of each Level 2 test is typically 8 hours. The peripherals utilized in Level 2 testing are noted in the following tables with the number "2", signifying that combination of hardware/operating system was tested and found to be functional.

## **Basic Level Testing:**

In addition to the testing Levels 1 and 2, a selection of products were tested on a Basic Level Testing I, noted in the following tables with the letter "T". This Basic Level Testing includes installation of add-in cards and drivers under the indicated operating systems to ensure that the system can boot successfully using that specific configuration. Basic Level Testing does not incorporate any stress testing and is used by Intel only to determine compatibility.

---

***Note: A configuration that is said to "pass" Intel's testing procedures does not guarantee that the results of such testing are repeatable. Many factors may affect the outcome of the test. The smallest differences in the configuration including, but not limited to the hardware (hard drives, clients, etc.), software, firmware, operating system, installation, and test procedures, may affect the outcome of a test.***

---

## 2 Supported Hardware/Operating System Configurations

### 2.1 Storage Devices

	Netware* 4.11	Netware* 4.11J (Japanese)	Netware* 5.0	Solaris* v7.0	UnixWare* v7.0.1	UnixWare* v2.1.3	OpenServer* v5.0.5	Windows* 98	Windows* NT v4.0 Workstation	Windows NT 4.0J Server	Windows* NT v4.0 Server	Windows* NT v4.0 Cluster
<b>Hard Disk Drives</b>												
Fjitsu* MPA3026U								T	T			
Seagate* Medalist Pro 9140 Series ST34520WC											T	
Seagate Cheetah 9LP LVD ST34502LC					T							
Seagate* Barracuda 4LP ST-32171WC								T	T			
Seagate Hawk 2XL ST32155WC										T	T	
Seagate Barracuda 4XL ST34572WC								T	T			
Seagate Barracuda 9LP ST34573W											T	
Western Digital* Caviar AC12100				T			T					
Western Digital Caviar AC13200					T	T				T	T	
Western Digital Caviar AC23200			T									
Western Digital Caviar AC22500				T	T		T					
Western Digital Caviar AC21600								T	T		T	T
Western Digital WDE1240								T				
Western Digital WDE2100	T		T									
Western Digital WDE9100				T	T							
Western Digital WDE2170			T	T	T	T	T				T	
<b>Tape Drives</b>												
Hewlett Packard* C1533A								T				
Sony* SDT-9000									T			
Hewlett Packard CC1528G Sure Store DAT 8i									2			
3M Matsushita* LS-120								2	2			
Iomega* Jaz								2	2			
<b>CD_ROM Drives</b>												
Hitachi* CDR-8335	2	2	2	2	2	2	2	2	2	2	2	
NEC* CDR-18101A								2	2			
Plextor* Ultrplex								2	2			
Toshiba* XM-6210B								2	2			

NOTE: 1 = Level 1 tested, 2 = Level 2 tested, and T= Tested for compatibility only. Blank entries are not on the Validation Summary.

\*Third-party brands and names are the property of their respective owners.

## 2.2 Hard Disk Controllers, Video Cards

	Netware* 4.11	Netware* 4.11J (Japanese)	Netware 4.2	Netware* 5.0	Sun Solaris v7.0	Solaris* v2.7	UnixWare* v7.0.1	Red Hat Linux v6.0	UnixWare* v2.1.3	OpenServer* v5.0.5	Windows* 98	Windows* NT v4.0 Workstation	Windows NT 4.0J Server	Windows* NT v4.0 Server Enterprise
<b>Hard Disk Controllers</b>														
Adaptec* AAA133												2		
Adaptec AIC-7896	T	T	T	T	T	T	T		T	T	T		T	T
Adaptec AHA-2940UW											2	2		
Adaptec AHA-3950U2B	1						1							1
Adaptec ANA-6944/TX				2										
Adaptec AHA 3940AUWD					2		2	2	2	2				
Adaptec ARO 1130U2			1	1			1							
Mylex* DAC960PJ				2										
Symbios* SYM22801							2				2	2		
Symbios SYM22910			1	1	1		1		1	1				
Symbios SYM3C875							T		T	T				
AMI* MegaRAID* Ultra2 LVDS series 438				1			1							1
Mylex AcceleRAID 250				1										
Mylex eXtremeRAID 1100				1			1							1
<b>Video Adapters</b>														
Quantum* Obsidian X-12											2	2		
ATI* All-In-Wonder Pro											2	2		
Number Nine Revolution 3D*											2	2		
Matrox* Millenium-II											2	2		
Onboard adapter Cirrus Logic* CL-GD5480	T	T		T			T		T	T				T

NOTE: 1 = Level 1 tested, 2 = Level 2 tested, and T= Tested for compatibility only. Blank entries are not on the Validation Summary.

\*Third-party brands and names are the property of their respective owners.

## 2.3 Network Interface Cards

	Netware* 4.11	Netware 4.2	Netware* 4.11J (Japanese)	Netware* 5.0	Sun Solaris v7.0	Solaris* v2.7	UnixWare* v7.0.1	UnixWare* v2.1.3	OpenServer* v5.0.5	Windows NT Server 4.0JT	Windows* NT v4.0 Server Enterprise
<b>Network Interface Cards</b>											
3Com* Fast EtherLink XL Parallel Tasking 10/100 3C905B-TX				2	2		2				
3Com Gigabit EtherLink 3C985-SX				T							
3Com Fast EtherLink XL Parallel Tasking 3C980-TX				1							1
Adaptec ANA-6944A				T							
Qlogic *QLA2000 Fibre Channel				1			1				1
Qlogic QLA2100/66				1	1		1	1	1		1
Qlogic ALA2100/33 Fibre Channel				1			1				1
EiconCard P92				T							
Intel PRO/10+ (ISA)	T			T							
Intel EtherExpress™ PRO/100B Server Adapter	2		2	2	2	2	2	2	2		
Intel EtherExpress PRO/100 SX				T							
Intel EtherExpress PRO/100+Adapter (82559 on board)		T		1	T		1	T	T	T	1
Intel EtherExpress PRO/100+ Dual Port Adapter				1			1				1
Intel EtherExpress PRO/100+ Intelligent Server Adapter				1			1				1
Intel EtherExpress PRO/1000 Gigabit	2			2			2				
Intel EtherExpress PRO/100 Intelligent				1			1				1
Intel EtherExpress PRO/100 Server Adapter				1			1				1
SMC*EtherPower II 10/100 SMC9332-BDT				1							1
SMC EtherPower II SMC9432-TX						2	2	2	2		

NOTE: 1 = Level 1 tested, 2 = Level 2 tested, and T= Tested for compatibility only. Blank entries are not on the Validation Summary.

\*Third-party brands and names are the property of their respective owners.

## 2.4 Modems, Sound Cards, Monitors, Printers, FDD's

	Netware* 4.11	Netware* 4.11J (Japanese)	Netware 4.2	Netware* 5.0	UnixWare* v7.0.1	UnixWare v2.1.3	Solaris v7.0	Red Hat Linux v6.0	Open Server v5.0.5	Windows* 98	Windows NT Server v4.0J	Windows* NT v4.0 Workstation	Windows NT 4.0J	Windows* NT v4.0 Server Enterprise
<b>Modems</b>														
3Com* Courier V. Everything										2		2		
3Com Sportster 33.6										2		2		
3Com Sportster 56K										T		T		
<b>Sound Cards</b>														
Creative Labs* SoundBlaster PCI AWE64										T		T		
<b>Monitors</b>														
AT&T*17-inch	T	T		T										
Viewsonic* 17EA						T	T	T	T					
Mag* DX1595											T	T		
Mag Innovision* DJ7000	T	T		T								T		T
Viewsonic 17GS					T									
Viewsonic 17PS												T		
<b>Printers</b>														
Hewlett Packard* LaserJet 5	T	T	T	T	T									
Hewlett Packard LaserJet 6MP													T	T
<b>FDD's</b>														
Mitsubishi* MF355F	T	T		T								T		T
Teac*FD-235	T	T		T										

NOTE: 1 = Level 1 tested, 2 = Level 2 tested, and T= Tested for compatibility only. Blank entries are not on the Validation Summary.

\*Third-party brands and names are the property of their respective owners.

## 2.5 Mouse, Keyboards

	Netware* 4.11	Netware v5.0	Netware* 4.11J (Japanese)	Netware* 5.0	Solaris v7.0	Red Hat Linux v6.0	UnixWare v2.1.3	Open Server v5.0.5	UnixWare* v7.0.1	Windows* 98	Windows NT Server 4.0J	Windows* NT v4.0 Workstation
<b>Mouse</b>												
IBM* MIC690 Enh Mouse II White 13H6690												T
Logitech* Cordless										T		
Logitech Trackman marble										T		T
Logitech M-S35	T	T	T	T								
Logitech MouseMan					T	T	T	T				
Logitech PS/2	T								T		T	T
Microsoft* Ergonomic Mouse										T		T
<b>Keyboard</b>												
Cirque* Glidepoint Keyboard										T		T
IBM PS/2	T		T	T								
Microsoft Natural Keyboard										T		T
NMB* Right Touch RT101												T
Dell* QuietKey									T			

NOTE: 1 = Level 1 tested, 2 = Level 2 tested, and T= Tested for compatibility only. Blank entries are not on the Validation Summary.

\*Third-party brands and names are the property of their respective owners.