



# **Intel<sup>®</sup> Carrier Grade Server TIGPR2U**

## **Tested Hardware and Operating System List**



**Revision 1.9**

**February, 2008**

**Modular Communications Platform Division**

## Revision History

Date	Revision Number	Modifications
6/25/02	0.1	Preliminary release.
7/17/02	0.2	Updated input device table; added hyperlinks; reconciled with latest SE7500WV2 and Quarterly Adapter and Peripheral List; updated OS table
8/08/02	0.3	Corrected rotational speed of Maxtor disk drives
8/22/02	0.4	Corrected order code for Barrow NIC
9/06/02	0.5	Updated floppy selections to reflect latest available products; Updated CD-ROM section to reflect latest TEAC revision
10/24/02	0.6	Update the product name from Langley-Pr to TIGPR2U; removed two NIC cards PLWA8490SX and PLWA8490T under section 2.2 ; Replaced Samsung DVD-ROM with Panasonic SR-8177-B; Added Panasonic CD-RW/DVD Combo drive; Replaced Iomega USB CD-RW with Plextor PX-W4012TU; Corrected model numbers for Fujitsu 36 and 73GB HDD; Corrected Model number for Intel Gb NIC; Updated Seagate 36GB disk to reflect new part number
10/28/02	0.7	Update OS table; updated product name in document body
11/21/02	0.8	Updated OS table
11/25/02	0.81	Corrected part numbers for Fujitsu disk drives; updated CD-ROM and DVD section; updated Telephony section
12/3/02	0.82	Made corrections and updates to CD-ROM and DVD section
12/17/02	0.83	Corrected model numbers and PCI keying for Telephony Adapters
2/12/03	0.84	Updated disk drive table-removed Hitachi drives, replaced Maxtor Atlas III drives with Maxtor Atlas IV drives
2/20/03	0.85	Section 2.1: updated Emulex model #s; Section 2.2: updated all model #s; Section 2.3: removed Mylex cards, Intel Caldwell replaced Pioneer Square; Section 2.4: added "R" to Adaptec model #;
3/4/03	0.86	Section 2.4: Added Adaptec 29320 SCSI cards
3/21/03	0.87	Section 3.1: Added TEAC DV-28E-BP3 Section 2.2: Removed 3Com 3C996B-T Section 2.3: Changed keying information for the SRCZCR RAID Controller
4/08/03	0.88	Section 3.5: Corrected descriptions of Telephony Adapters
7/08/03	1.0	Official Release
8/25/03	1.1	Section 4: Added RH AS 2.1 to validated list of OS.
01/26/2004	1.2	Updates added to all sections
Q104	1.3	Peripheral additions
Q304	1.4	Peripheral additions
Q205	1.5	Peripheral additions
Q106	1.6	RoHS Updates
Q206	1.7	RoHS HDD Updates
Q307	1.8	Hard drive additions
Q108	1.9	CDROM revision additions

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# Table of Contents

<b>1. Introduction .....</b>	<b>1</b>
1.1 Purpose of this Document .....	1
<b>2. Adapter List .....</b>	<b>2</b>
2.1 Fiber Channel Cards.....	2
2.2 Network Interface Controllers (NICs).....	2
2.3 RAID Controllers.....	3
2.4 SCSI Controllers .....	4
<b>3. Peripherals.....</b>	<b>5</b>
3.1 CD-ROM Drives.....	5
3.2 CD-RW Drives .....	5
3.3 CD-RW/DVD Combo Drives .....	5
3.4 DVD Drives .....	5
3.5 DVD-RW Drives.....	6
3.6 Hard Drives.....	6
3.7 Input Devices.....	7
3.8 Removable Media Devices .....	7
3.9 Telephony .....	7
<b>4. Operating Systems.....</b>	<b>9</b>
<b>5. Intel® Certification and Validation Process.....</b>	<b>10</b>
5.1 Certification Defined .....	10
5.2 Validation Defined.....	10
5.2.1 Multiple Adapter Validation - .....	10
5.2.2 Compatibility - .....	10

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# 1. Introduction

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## 1.1 Purpose of this Document

This document is intended for use by Intel's customers. It is intended to provide its readers with a guide to the different technologies Intel plans to use to test the server board. It provides tables to show the operating systems, adapter cards, and peripherals Intel that plans to test with the Intel® Carrier Grade Server TIGPR2U.

For each operating system, adapter, and peripheral configuration, a test passes if specific criteria are met. Specific configurations may have particular characteristics that will be addressed on a case-by-case basis. In general, a configuration passes testing if the following conditions are met:

- The operating system installed without error.
- Manufacturer's installation instructions or Intel's best known methods were used for the operating system installation.
- No extraordinary workarounds were required during the operating system installation.
- The server system behaved as expected during and after the operating system installation.
- Application software installed subsequently and executed normally.
- Hardware compatibility tests ran to completion without error.
- Test software suites executed successfully.
- Test and data files were created in the correct directories without error.
- Files copied from client to server and back compare to the original with zero errors reported.
- Clients remain connected to the server system.
- Industry standard test suites run to completion with zero errors reported.

## 2. Adapter List

The following is a list of adapter cards that Intel has tested with the TIGPR2U server. The adapters have been broken down into categories based on their functionality. All integrated onboard devices are tested by default and are, therefore, not included in the following tables.

### 2.1 Fiber Channel Cards

Vendor	Model	Model Name	Interface	Keying	Form Factor
Emulex*	LP9002LP-F2	LightPulse 9002	PCI-64/33	Universal	LPPCI/PCI-Short
Emulex*	LP9402DC-F2	LightPulse 9402	PCIX-133	Universal	PCI-Short
Emulex	LP9802DC	LP9802DC	PCI-64/66	Universal	PCI-LP/RP
Qlogic*	QLA2200L	SANblade2200	PCI-64/66	Universal	LPPCI
Qlogic*	QLA2340	QLA2340	PCI-64/66	Universal	PCI-Short

### 2.2 Network Interface Controllers (NICs)

Vendor	Model	Model Name	Interface	Keying	Form Factor
3COM	3C905C-TXM	EtherLink 10/100 PCI	PCI-32/33	Universal	PCI-Short
3COM	3C980C-TXM	EtherLink 10/100 PCI Managed	PCI-32/33	Universal	PCI-Short
3COM	3c996B-T	3c996B-T Gigabit Server Adapter	PCI-X133	Universal	PCI-Short
Dlink	DFE - 530/TX+	DFE - 530/TX+	PCI-32/33	Universal	PCI-Short
Intel	PILA8470D3G1L20	Intel® Pro 100 S Server Adapter	PCI-32/33	Universal	LPPCI
Intel	PILA8470D3G1P20	Intel® Pro 100 S Server Adapter	PCI-32/33	Universal	PCI-Short
Intel	PILA8490XT	Intel® PRO/1000 XT Server Adapter	PCIX-133	Universal	LPPCI/PCI-Short
Intel	PWLA8492MT	Intel® PRO/1000 MT Dual Port Server Adapter	PCIX-133	Universal	LPPCI/PCI-Short
Intel	PILA8472C3	PRO/100+ Dual Port	PCI-64/66	Universal	PCI-Short
Intel	PWLA8490MF	PRO/1000MF Gigabit Server Adapter	PCI-X133	Universal	PCI-LP/RP
Intel	PWLA8490MT	PRO/1000MT Gigabit Server Adapter	PCI-X133	Universal	PCI-LP/RP
Intel	PWLA8490XF	PRO/1000XF Gigabit Server Adapter	PCI-X133	Universal	PCI-Short
Intel	PWLA8490XFL	PRO/1000XFL Gigabit Server Adapter	PCI-X133	Universal	PCI-LP
Intel	PWLA8490XTL20	PRO/1000XTL Gigabit Server Adapter	PCI-X133	Universal	PCI-LP
Intel	PWLA8492MF	PRO/1000MF Dual Port Gigabit Server Adapter	PCI-X133	Universal	PCI-LP/RP



Intel	PWLA8492MT	PRO/1000MT Dual Port Gigabit Server Adapter	PCI-X133	Universal	PCI-LP/RP
Intel	PWLA8492M	PRO/1000MF Dual Port Gigabit Server Adapter	PCI-X133	Universal	PCI-LP/RP

## 2.3 RAID Controllers

Vendor	Model	Model Name	Interface	Keying	Form Factor
Adaptec	ASR-2010S	ASR-2010S	PCI-64/66	3.3V	PCI-LP/RP
Adaptec	ASR-2110S	ASR-2110S	PCI-64/66	Universal	PCI-LP/RP
Adaptec	ASR-2120S	ASR-2120S	PCI-64/66	Universal	PCI-Short
Adaptec	ASR-2200S	ASR-2200S	PCI-64/66	Universal	PCI-Short
Adaptec	ASR-3410S	ASR-3410S	PCI-64/66	Universal	PCI-Long
ICP vortex	GDT4523RZ	GDT4523RZ	PCI-64/66	Universal	PCI-Short
ICP vortex	GDT8623RZ	GDT8623RZ	PCI-64/66	Universal	PCI-Short
LSI Logic*	4932010232A	Elite 1600* (MegaRAID 493)	PCI-64/66	Universal	PCI-Short
LSI Logic	MegaRAID 475	Express 500 (MegaRAID 475)	PCI-32/33	Universal	PCI-Short
LSI Logic	MegaRAID 320-1 (520-1)	MegaRAID SCSI 320-1	PCI-64/66	Universal	PCI-LP/RP
LSI Logic	MegaRAID 320-2 (518)	MegaRAID SCSI 320-2	PCI-64/66	Universal	PCI-Short
LSI Logic	LSI22320-R	LSI22320-R	PCI-X133	Universal	PCI-Short
Intel	SRCU32U	Intel® RAID Controller SRCU32U	PCI-64/66	Universal	PCI-Medium
Intel	SRCU31L	Intel® Server RAID Controller U3-1L Low Profile (SRCU31L)	PCI-32/33	Universal	LPPCI
Intel	SRCU41L	SRCU41L	PCI-64/66	Universal	PCI-Short
Intel	SRCU42X	SRCU42X	PCI-64/66	Universal	PCI-Short
Intel	SRCU42L	SRCU42L	PCI-64/66	Universal	PCI-LPRP
Intel	SRCFC22C	SRCFC22C	PCI-64/66	Universal	PCI-Long
Intel	SRCZCR	Intel® RAID Controller SRCZCR	PCI-64/66	3.3V	LPPCI

## 2.4 SCSI Controllers

Vendor	Model	Model Name	Interface	Keying	Form Factor
Adaptec*	ASC-29160LP rev D or later	ASC-29160LP	PCI-64/66	Universal	LPPCI
Adaptec*	ASC-29160N	ASC-29160N	PCI-32/33	Universal	PCI-Short
Adaptec*	ASC-39160	ASC-39160	PCI-32/33	Universal	PCI-Short
Adaptec*	ASC-39320-R	ASC-39320-R	PCI-X133	Universal	PCI-Short
Adaptec*	ASC-29320-R ASC-29320LP-R	ASC-29320 ASC-29320LP-R	PCI-X133 PCI-X133	Universal Universal	PCI-Short LPPCI
LSI Logic	LSI-20160L	LSI-20160L	PCI-32/33	Universal	PCI-LP
LSI Logic	LSI-20320-R	LSI-20320-R	PCI-X133	Universal	PCI-LP/RP
LSI Logic	LSI-22320-R	LSI-22320-R	PCI-X133	Universal	PCI-Short

## 3. Peripherals

### 3.1 CD-ROM Drives

Vendor	Model	Model Name	Interface	Form Factor	Device
Mitsumi*	SR-224W1	SR-224W1	ATA 33	5.25x0.5	CD-ROM
TEAC*	CD-224E revisions A83, B83/B, C83, or N83	CD-224E	ATA 33	5.25x0.5	CD-ROM
Samsung*	SN-124Q	SN-124Q	ATA 33	5.25x0.5	CD-ROM
Samsung*	SN-124	CD-Master 24E	ATA 33	5.25x0.5	CD-ROM
TEAC*	CD-210PU/KIT	CD-210PU/KIT	USB	External	CD-ROM

### 3.2 CD-RW Drives

Vendor	Model	Model Name	Interface	Form Factor	Device
Plextor*	PX-W4012TU	PX-W4012TU	USB	External	CD-RW

### 3.3 CD RW/DVD Combo Drives

Vendor	Model	Model Name	Interface	Form Factor	Device
Panasonic*	CW-8121-B	CW-8121-B	ATA33	5.25x0.5	CD-RW/DVD Combo
TEAC*	DW-224EA-83	DW-224EA-83	ATA 33	5.25x0.5	CD-RW/DVD Combo
TEAC*	DW-224EA-98	DW-224EA-98	ATA 33	5.25x0.5	CD-RW/DVD Combo
HP*	GCA-4040N(S05D)	GCA-4040N	ATA 33	5.25x0.5	DVD +R/RW
H-L Data*	GCC-4241N	GCC-4241N	ATA 33	5.25x0.5	DVD -R/RW

### 3.4 CD/DVD Drives

Vendor	Model	Model Name	Interface	Form Factor	Device
Lite-On*	SDW-421S	SDW-421S	ATA 33	5.25x0.5	CD/DVD-ROM
Panasonic*	SR-8177-B	SR-8177-B	ATA 33	5.25x0.5	DVD-ROM
TEAC*	DV-28E-BP3	DV-28E-BP3	ATA 33	5.25x0.5	DVD-ROM
Teac*	DW-224E-C98	DV-224E-C98	ATA 33	5.25x0.5	CD/DVD-ROM
Toshiba*	SD-C2612	SD-C2612	ATA 33	5.25x0.5	DVD-ROM
TEAC*	DV-28E-CP3	DV-28E-BP3	ATA 33	5.25x0.5	DVD-ROM
TEAC*	DW-224E-C98	DW-224E-C98	ATA 33	5.25x0.5	DVD-ROM

### 3.5 DVD-RW Drives

Vendor	Model	Model Name	Interface	Form Factor	Device
Toshiba*	SD-R6112	SD-R6112	ATA 33	5.25x0.5	DVD -RW
HP*	GCA-404N(SO5D)	GCA-404N	ATA 33	5.25x0.5	DVD +RW
TEAC*	DV-W28E A-593	DV-W28E A-593	ATA 33	5.25x0.5	DVD-ROM

### 3.6 Hard Drives

Vendor	Model	Model Name	Interface	Form Factor	Capacity / RPM
Fujitsu*	MAP3367NC	Allegro 8*	SCSI-U320-SCA	3.5x1	36GB 10K
Fujitsu*	MAP3735NC	Allegro 8*	SCSI-U320-SCA	3.5x1	73 GB 10K
Fujitsu*	MAP3147NC	Allegro 8*	SCSI-U320-SCA	3.5x1	147 GB 10K
Fujitsu*	MAT3073NC		SCSI-U320-SCA	3.5x1	73 GB 10K
Fujitsu*	MAT3147NC		SCSI-U320-SCA	3.5x1	147 GB 10K
Fujitsu*	MAT3300NC		SCSI-U320-SCA	3.5x1	300 GB 10K
Fujitsu*	MAU3036NC		SCSI-U320-SCA	3.5x1	36 GB 15K
Fujitsu*	MAU3073NC		SCSI-U320-SCA	3.5x1	73 GB 15K
Fujitsu*	MAU314NC		SCSI-U320-SCA	3.5x1	147 GB 15K
Fujitsu*	MAU3147NC		SCSI-U320-SCA	3.5x1	147 GB 15K
Fujitsu*	MAW3073NC		SCSI-U320-SCA	3.5x1	73 GB 10K
Fujitsu*	MAW3147NC		SCSI-U320-SCA	3.5x1	147 GB 10K
Fujitsu*	MAW3300NC		SCSI-U320-SCA	3.5x1	300 GB 10K
HGST*	DK32EJ-36NC	Jura-E	SCSI-U320	3.5x1	36 GB 10K
HGST*	DK32EJ-72NC	Jura-E	SCSI-U320	3.5x1	72 GB 10K
HGST*	DK32EJ-14NC	Jura-E	SCSI-U320	3.5x1	146 GB 10K
HGST*	HUS103073FL3800	Ultrastar 10K300	SCSI-U320	3.5x1	73 GB 10K
HGST*	HUS103014FL3800	Ultrastar 10K300	SCSI-U320	3.5x1	146 GB 10K
HGST*	HUS103020FL3800	Ultrastar 10K300	SCSI-U320	3.5x1	300 GB 10K
HGST*	HUS153073VL3800	Ultrastar 15K300	SCSI-U320	3.5x1	73 GB 15k
HGST*	HUS153014VL3800	Ultrastar 15K300	SCSI-U320	3.5x1	147 GB 15k
HGST*	HUS153030VL3800	Ultrastar 15K300	SCSI-U320	3.5x1	300 GB 15K
Maxtor*	8B036J0	Atlas* 10K IV	SCSI-U320-SCA	3.5x1	36 GB 10K
Maxtor*	8B073J0	Atlas* 10K IV	SCSI-U320-SCA	3.5x1	73 GB 10K
Maxtor*	8B146J0	Atlas* 10K IV	SCSI-U320-SCA	3.5x1	146 GB 10K
Maxtor*	8D073J0	Atlas* 10K V	SCSI-U320-SCA	3.5x1	73 GB 10K
Maxtor*	8D147J0	Atlas* 10K V	SCSI-U320-SCA	3.5x1	147 GB 10K
Maxtor*	8D300J0	Atlas* 10K V	SCSI-U320-SCA	3.5x1	300 GB 10K
Maxtor*	8J073J0	Atlas* 10K V	SCSI-U320-SCA	3.5x1	73 GB 10K
Maxtor*	8J147J0	Atlas* 10K V	SCSI-U320-SCA	3.5x1	146 GB 10K
Maxtor*	8J300J0	Atlas* 10K V	SCSI-U320-SCA	3.5x1	300 GB 10K
Maxtor*	8K073J0	Atlas* 15K V	SCSI-U320-SCA	3.5x1	73 GB 15K
Maxtor*	8K147J0	Atlas* 15K V	SCSI-U320-SCA	3.5x1	146 GB 15K
Maxtor*	8K300J0	Atlas* 15K V	SCSI-U320-SCA	3.5x1	300 GB 15K

Seagate*	ST3146807LC	Cheetah* 10K VI	SCSI-U320-SCA	3.5x1	147 GB 10K
Seagate*	ST336607LC	Cheetah* 10K VI	SCSI-U320-SCA	3.5x1	36.7 GB 10K
Seagate*	ST336753LC	Cheetah* X15	SCSI-U320-SCA	3.5x1	36 GB 15K
Seagate*	ST373307LC	Cheetah* 10K VI	SCSI-U320-SCA	3.5x1	73 GB 10K
Seagate*	ST373453LC	Cheetah* X15	SCSI-U320-SCA	3.5x1	73 GB 15K
Seagate*	ST973401LC	Savvio 10K	SCSI-U320-SCA	3.5x1	73 GB 10K
Seagate*	ST300007LC		SCSI-U320-SCA	3.5x1	300 GB 10K
Seagate*	ST373207LC	Cheetah 10K.7	SCSI-U320-SCA	3.5x1	73 GB 10K
Seagate*	ST3146707LC	Cheetah 10K.7	SCSI-U320-SCA	3.5x1	146 GB 10K
Seagate*	ST3300007LC	Cheetah 10K.7	SCSI-U320-SCA	3.5x1	300 GB 10K

### 3.7 Input Devices

Vendor	Model	Model Name	Interface	Form Factor	Description
Logitech*	930502-0403	MiniWheel	PS/2 and USB	external	mouse
Logitech*	967233-0403	Internet Navigator	PS/2 and USB	n/a	external
Microsoft*	D58-00026	Intellimouse Optical	PS/2 and USB	external	mouse
Keytronic*	E06101D201G-C	6101 Series	PS/2	external	keyboard
Keytronic*	E06101USB-C	6101 Series	USB	external	keyboard
Keytronic*	PRO Pilot	PRO Pilot	PS/2	external	keyboard
Microsoft*	A11-00337	Natural Keyboard Elite	PS/2 and USB	external	keyboard

### 3.8 Removable Media Devices

Vendor	Model	Model Name	Interface	Form Factor	Description
Mitsumi*	D353F3-X		FLOPPY	3.5x0.5,Slim	3 1/2" floppy disk
Teac*	FD-05HF-5640	FD-05HF	FLOPPY	3.5x0.5,Slim	3 1/2" floppy disk

### 3.9 Telephony

Vendor	Model	Model Name	Interface	Keying	Form Factor	Description
Intel (Dialogic)	DM/V960A-4T1	Intel® Dialogic® Quad Span Voice Series	PCI-32/33	Universal	PCI-Long	Quad T-1 ISDN Network Interface with 96 Ports of Voice Processing and Telephony Signaling.
Intel (Dialogic)	DM/V600A-4E1	Intel® Dialogic® Quad Span Voice Series	PCI-32/33	Universal	PCI-Long	Quad E-1 ISDN Network Interface with 60 Ports of Voice Processing and 120 Ports of Telephony Signaling

***Note: Blue shading indicates that the adapter or peripheral is either available or will be available in a lead-free version.***

## Operating Systems

Intel has tested the following operating systems for use on the Intel® Telecom and Industrial Grade Server TIGPR2U.

Item	TIGPR2U
Red Hat* Linux 8.0	X
Windows* 2003 Advanced Server	X
Windows* 2000 Advanced Server, Service Pack 3	X
CGE Monta Vista* 3.0	X
Red Hat Enterprise Linux 3.0	X
Red Hat Linux Advanced Server 2.1	X

### 3.10 Future OS Support

Intel has the following plans for future OS support on the Intel® Telecom and Industrial Grade Server platform TIGPR2U.

Item	TIGPR2U	Tentative Date

## **4. Intel® Certification and Validation Process**

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### **4.1 Certification Defined**

Certification for an OS is accomplished using the OS vendor's (i.e. Microsoft, Red Hat, etc.) test suite, and it consists of operating system installation and execution of the test suite in accordance with the vendor's instructions. The specific testing that the test suite performs varies from OS to OS. This is the only testing done for certification. The test suites are run, resulting in either a passing or failing outcome. If passing, the test results are submitted to the vendor for logo of the particular hardware tested with the vendor's OS. Submission of these results normally requires a fee be paid to the OS vendor for the submission, verification, and posting of the certification.

### **4.2 Validation Defined**

Validation consists of a complete MAV (Multiple Adapter Validation) run and a compatibility run of the system with the approved operating systems, adapters, and peripherals.

#### **4.2.1 Multiple Adapter Validation -**

Within the MAV cycle, the systems are installed with a maximum number of approved Priority 1 adapters, the operating system is installed, and the systems are stressed for a period of 12 – 100 hours using network, disk, and local (i.e. memory, cpu, etc.) stress programs that are known to produce faults in unstable systems.

Numerous different configurations are tested to ensure proper interaction between Priority 1 adapters, the operating system, and the platform under test.

#### **4.2.2 Compatibility -**

Within the Compatibility cycle, Priority 2 adapters and regression (Priority 2) operating systems are tested. Testing is normally done with a limited number of adapters in the system (normally one add-in NIC and one add-in HBA) with the goal being to verify that these platform/operating system/adapter combinations will function properly. This testing does not stress the platform or adapters heavily. SCSI and IDE operating system installs, general functionality of the platform, and adapter/operating system compatibility are the main areas tested. The operating system vendor's hardware compatibility test suites are also executed for each approved OS, to ensure that the platform is capable of passing these tests (even if they are not being submitted for certification).