



Intel® Carrier/Industrial Grade Server (NEBS-3 and ETSI Certified) Intel® Carrier Grade Server TIGPT1U (1Ux20" D)

Configuration Guide System / Spares / Accessories List Rev 2.0

A reference guide to assist customers and the field in ordering these servers, accessories and spares

~Subject to Change without Notice~



Intel® Carrier Grade Server TIGPT1U uses the
Intel® Pentium® 4 Processor

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I. Change History

Revision	Date	Comments
1.0	06/01/2004	Original Document
1.1	06/09/2004	Production Version - updated SKUs, Spares, Note Section
1.2	06/29/2004	Updated systems Image, Removed reference to Clips, clarified Heatsink as a required and necessary component to be ordered through Intel only
1.3	8/18/2004	Added Hard Drive Carriers Spare (for hot swapping stand-by drives).
1.4	5/23/2005	Added External SCSI option; updated MOUNT kits;
1.5	8/23/2005	EOL of TCPFANSET02; replaced by TCPFANSET04. This is a direct replacement.
1.6	12/13/2005	Added Additional stepping option for CPU Added AC External SCSI option
1.7	02/12/2006	Added RoHS MM#'s.
1.8	5/01/2006	Updated OEM code and documentation section.
1.9	6/21/2006	Updated RoHS heatsink MM#
2.0	9/06/2006	Updated RoHS MM#'s for "W" Product Codes

II. Introduction

Intel® Carrier Grade Server TIGPT1U is a Telecom and Industrial Grade Server (1U x 20"D form factor) designed for the Intel® Pentium® 4 processor. This is the second generation of the 1Ux20"D Intel® Carrier Grade Server for Telecom and Industrial Grade Rack Server. The first generation, Intel® Carrier Grade Server TSRMT2, was based on a Pentium® III Processor with 512KB cache. The Intel® Carrier Grade Server TIGPT1U is based on Intel® Pentium® 4 Processor running at 3.0 GHz with 1MB L2 cache, 800 MHz system bus speed, and manufactured on 90nm (nanometer) process technology.

The Intel® Carrier Grade Server TIGPT1U is a NEBS-3 and ETSI certified product which is suited for a host of applications in the telecom CO and industrial environment. The server is targeted to OSS (Operations System and Support), Billing, Provisioning, Softswitch, Media Server, Security and VPN functions, SMS, Wireless and Unified Messaging, Call Center and many other applications. It can also support manufacturing, industrial, utility and even military applications where a rugged, highly reliable server is required for harsh environments such as dust, high altitude, fire hazard, earthquake propensity, and high ambient temperatures.

III. Production SKUs

Intel® Carrier Grade Server TIGPT1U is offered as a building block Server, meaning it consists of a chassis, appropriate power supply (AC or DC versions), baseboards, PCI Riser card, Hot Pluggable SCSI HDD Carriers, and CDROM. This is the lowest level of integration made available.

The building block model is offered as two distinct SKUs, one with a AC PSU Power Supply Unit), and the other SKU with a DC PSU. All other components of the building block server are identical (as listed in the previous paragraph).

The building block server (either SKU) requires a CPU, appropriate memory, one or two hard drives and the necessary software to be functional. These components are not provided with the product and must be obtained separately.

The MM#'s and Product Order Codes for RoHS have been revised to include the "W" suffix, which allows customers to be more specific in their ordering. Non-RoHS SKUs are now obsolete. The RoHS versions of Product Order Code not containing W's were not implemented, and should not be used for ordering.

The four Production SKUs are listed below.

Product Order Code	RoHS MM#	Previous MM#	Description	UPC Code	QTY / Box
TCPA0201	878954	868883	TIGPT1U,Base Server, AC, 3.3V Riser, CDROM	735858166249	1
TCPD0201	878952	868884	TIGPT1U, Base Server, DC, 3.3V Riser, CDROM	735858166256	1
TCPA0301	884734	878077	TIGPT1U, Base 0 AC, External SCSI	735858180412	1
TCPD0301	879044	866619	TIGPT1U, Base 0 DC, E. SCSI, 3.3V Riser, DVD R/W +/- (note: System supports only 1 SCSI hard drive and does not support Audible Alarming)	735858172561	1
TCPA0201W	886138	none	TIGPT1U, Chesnee Prescott Base Server, AC, 3.3V Riser, CDROM, RoHS	735858190497	1
TCPD0201W	885936	none	TIGPT1U, Chesnee Prescott Base Server, DC, 3.3V Riser, CDROM, RoHS	735858190503	1
TCPA0301W	885939	none	TIGPT1U, Chesnee Prescott Base 0 AC, External SCSI, RoHS	735858190510	1
TCPD0301W	885935	none	TIGPT1U, Chesnee Prescott Base 0 DC, E. SCSI, 3.3V Riser, DVD R/W +/-; RoHS (note: System supports only 1 SCSI hard drive and does not support Audible Alarming)	735858190527	1

Production SKUs Description:

Product Order Code	Description and Comments
TCPA0201W (note 1,2)	<p>Base Model 0 building block, AC Power</p> <p>Includes: Chassis, top cover, bezel, AC PSU, Baseboard, mid-plane board, Interconnect board, Extended Front Panel board, 3.3V High Power PCI Riser and PCI Riser Bracket, 6 fans and a fan bracket, CDROM and CDROM carrier, 2 SCSI hard drive carriers, numerous cables such as SCSI, IDE, Alarm and internal power cables, Intel Express Installer CD with Intel SM, utilities, drivers, and Quick Start Guide.</p> <p>Excludes: Power cable, CPU, CPU heatsink (which must be ordered through Intel from the list in this configuration Guide), memory, hard drive, OS , all of which must be provided independently by customers.</p>
TCPD0201W (note 1,2)	<p>Base Model 0 building block, DC Power</p> <p>Exactly same as TCPA0201W, except PSU is DC</p>
TCPD0301W	<p>Exactly same as TCPD0201W, except:</p> <ul style="list-style-type: none"> a) supports only one internal SCSI disk drive b) additionally, provides External SCSI port c) does not support audible alarming.
TCPA0301W	<p>Exactly same as TCPA0201W, except:</p> <ul style="list-style-type: none"> a) supports only one internal SCSI disk drive b) additionally, provides External SCSI port c) does not support audible alarming.

Note:

1. Minimum Order Quantity is 1.
2. The only Intel® Pentium® 4 processor certified for NEBS and validated for proper environmental operation with this server (AC and DC SKUs) is listed below (this processor is Socket N, Stepping C0, D0 and E0 - both of which are supported and for this purpose are not different in function or performance):

Supported Pentium® 4 processor:

Speed/ Features	Front Side Bus Speed (FSB)	MM#	OEM/Tray Processor Order Code	Process
3.0 GHz	800 MHz	872636	NE80546PG0801M	90 nm

Note:

- ❖ Retail (Boxed) Processor is no longer available. Customers must now order OEM/tray processors.
- ❖ The processor above reflects G-1 stepping Pb-Free CPU.
- ❖ Only the thermal solution (heat sink) listed in the Spares List below may be used with this platform. No other thermal solution is supported. See TCPSNKCLP02 in the Spares List below. This thermal solution must be ordered through Intel and only the part indicated here (TCPSNKCLP02) is supported. The heatsink shipping with the boxed CPU is not supported.
- ❖ A complete list of compatibility information exists at <http://support.intel.com> in the Server Product section. Information available includes tested memory, tested hardware and operating systems, and much more.
- ❖ For RoHS system builds, this same CPU above can be used, with no modification.

AC Power Cords

Power Cords are not included. For AC Power cords, order the power cord below. For DC Power cords, see your OEM or System Integrator.

PID	MM#	Comments
PWRCABLEUS	816324	This AC power cable may be ordered by North American (NA) customers. International customers should procure their specific power cords directly.

IV. Production Spares and Accessories List

These are the Spares and Accessories that may be ordered with this system. Spares and Accessories may be used in AC or DC SKUs (except for Power supplies).

Note: These Spares and Accessories may be used to build up systems (configure to order) at customer site, or may be used as repair FRUs (Field Replaceable units). Intel does not integrate components from this list into the base building servers listed above.

Product Order Code	RoHS MM#	Old MM#	Description	QTY / Box	MOQ	UPC Code
SR1DCPSU102	880105	845883	Power Supply DC 250W, 1U	1	1	735858154437
FXX250W	880121	837064	Power Supply, AC, 250W 1U	1	1	735858147644
TCP3VRISR02	880149	858598	TIGPT1U,BOARD,3.3V 1URISER, 25W, SPARE	1	1	735858165587
TCPFPIOLP02	880154	858585	TIGPT1U, BOARD, FRNT PAN IO, LED PIPE, SPARE	SET	1	735858165594
TCPDDBPLN02	880192	858587	TIGPT1U, BOARD, POWER DIST, BACKPLANE, SPARE	SET	1	735858165600
TCPCLMSC02	No change	858588	TIGPT1U,CABLES (8),INTERCONNECT,SPARE	SET	1	735858165617
TCPBEZEL002	880152	858590	TIGT1U, BEZEL w/INSERT, SPARE	1	1	735858165624
TCPSNKCLP02	880411	858593	TIGPT1U, HEATSINK FOR CPU W/HARDWARE,SPARE	1	6	735858165631
TCPBASBRD02	880150	858592	TIGPT1U, TELECOM BASEBOARD, SPARE	1	1	735858165655
TCPHDCARR02	No change	861714	TIGPT1U, HOT SWAP DRIVE CARRIERS (2), SPARE	2	1	
TCPDDBPLN04	880108	866625	TIGPT1U,E.SCSI SKU-BOARD,POWER DIST,BACKPLANE,SPARE	SET	1	735858165600
TCPCLMSC04	880106	866685	TIGPT1U,E.SCSI SKU-CABLE - SCSI cable (1),SPARE	SET	1	735858165617
TCPFANSET04	880107	866691	TIGPT1U,E.SCSI SKU-FAN, SET (4) ASSY,BRACKET,SPARE	SET	1	735858165648
PWRCABLEUS	No change	816324	North American AC Power Cable	1	1	

Note:

1. MOQ or Minimum Order Quantity is the minimum number of Spares that must be ordered at one time. If qty per box is 1 but MOQ is 6, that means a minimum of 6 must be ordered each time that Spare is ordered.

Production Spares and Accessories Comments:

PID	Description and Comments
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SR1DCPSU102	1U 250W -48V DC PSU (same as used in TSRMT2). Use only as FRU; is included in base DC server SKU.
FXX250W	1U 250W 120/240V auto-ranging AC PSU (same as used in TSRMT2). Use only as FRU; is included in base AC server SKU.
TCP3VRISR02	3.3V High Power Riser (this Riser is not the same as used in TSRMT2). Use only as FRU; is included in base AC and DC server SKUs.
TCPFPIOLP02	Extended Front Panel board with SCSI Hot Swap logic, Telecom Alarms circuit support. Use only as FRU; is included in base AC and DC server SKUs.
TCPDBPLN02	Mid-plane board with power cables routing. Use only as FRU; is included in base AC and DC server SKUs.
TCPBLMSC02	Miscellaneous Cables (qty 8, includes: SCSI, IDE, USB, Alarm, internal power for drives). Use only as FRU; is included in base AC and DC server SKUs.
TCPBEZEL002	Generic Intel Bezel. Use only as FRU; is included in base AC and DC server SKUs.
TCPSNKCLP02 (Required)	Required: Thermal solution includes a heat sink. This heatsink must be ordered for this platform (no other heatsink is supported for this platform). This item must be ordered separately (does not ship with the system SKU) and directly through Intel and is required to configure the system with CPU (CPU must be procured independently from normal sources).
TMLCMOUNT21	This is 1U 19" center mount (2-post) rack mount. This mount is NEBS/ETSI-certified
TMLPMOUNT51	This is 1U/2U 19" center or Data Center (2-post or 4-post) rack mount. This mount in NEBS/ETSI-certified and features friction rail with safety stops.
TMLPMOUNT52	This is 1U/2U 23" EIA center or Data Center (2-post or 4-post) rack mount. This mount in NEBS/ETSI-certified and features friction rail with safety stops.
TCPDBPLN04	Only for use with TCPD0301 (External SCSI SKU)
TCPBLMSC04	Only for use with TCPD0301 (External SCSI SKU)
TCPFANSET04	Update: This Fan set is applicable to either <u>all</u> TIGPT1U SKUs. Previously this part had been recommended for only the External SCSI SKU.

Production Spares and Accessories: (cont.)

TMLPSLIDE01	This is a kit for use with a roller slide rail such as Accuride rails model 305-A-LR (not included in this Spare, nor offered by Intel). Note use of slide rails may result in the system configuration to be non-NEBS compliant. Customer must separately purchase the Accuride rails.
TCPFANSET02	This is the fan spare (qty 6 of 40mm) with fan bracket. Note 4 fans are in dual pair (counter rotating) packaging. Bracket is used with 5 of the fans. Use only as FRU; is included in base AC and DC server SKUs. TCPFANSET04 replaces this part.
TCPBASBRD02	This is the telecom baseboard (motherboard) and includes the chipset. Use only as FRU; is included in base AC and DC server SKUs.
TCPHDCARR02	This is the spare with 2 hard drive carriers for the SCSI drives. Use this for stand-by SCSI hard drives (i.e. one or two stand-by drives can be used to quickly replace a defective drive, instead of removing the carriers from the system drive and attaching to Spare drive). Use the same spare for both AC and DC systems.

V. Rack Mounts

Two sets of rack mounts and one set of Slide Rail Enabling Kit are offered with this product.

The first rack mount kit, TMLCMOUNT21, is a set of mounts, which is used for mounting TSRLT2, TSRMT2 or TIGPR2U servers to a 2-post Central Office type 19" wide rack. These mounts are L-shaped brackets.

The second set of rack mount kits consist of two different styles. TMLPMOUNT51 is used for mounting TIGPR2U servers to a 2-post or 4-post 19" wide rack. These racks are considered standard EIA (universal hole spacing) racks. TMLPMOUNT52 is used for mounting these servers to a 2-post or 4-post 23" wide rack. These racks could be standard EIA (universal hole spacing) or ETSI (European) racks. Although the mounts are designed as rails, they are not sliding rails.

The third set is an enabling kit (not the actual mount), which can be used if customers intend to use sliding rails for their rack. In that case, customers can use the TMLPSLIDE01 kit, which has the appropriate hardware to be used with sliding rails such as Accuride rails model 305-A-LR. The sliding rails have to be procured independently by the OEM customers or end users. Note using slide rails may result in non-compliance with seismic zone 4 requirements of NEBS-3 certification.

All rack mounts are NEBS-3 and Seismic zone-4 certified. Installation instructions are included in the mount and spare kits.

PID	Description	RoHS MM#	Prior MM# (obsolete in July 2006)	Minimum Order Quantity
TMLCMOUNT21	Rack mount kit, 19inch 2 post rack - "L" bracket - 1U & 2U	881904	838889	10
TMLPMOUNT51	Rack mount kit, 19inch 2 & 4 post rack, stop feature, universal EIA - 1U & 2U	881934	851760	1
TMLPMOUNT52	Rack mount kit, 23inch 2 & 4 post rack, stop feature, universal EIA/ETSI - 1U & 2U	881935	851745	1
TMLPSLIDE01	Rack mount slide rail kit, 19inch 4 post, (for use with Accuride Slide Rail #305-A-LR) Customer must separately purchase the Accuride Slide rail.	881915	845583	10
TMLPMOUNT41	2/4 Piece 19" Rack Mount kit	881907	838890	10

Although these mounts have been designed for industry standard racks, please consult with your Intel Field Application or Sales Engineer before selecting racks for these servers.

VI. Documentation

Support.Intel.Com Users:

Product information including specifications, compatibility, user's guides, drivers, firmware, and software associated with the Intel® Carrier Grade Server TIGPT1U is available from Intel Customer Support.

Intel® Carrier Grade Server TIGPT1U support web site:

<http://support.intel.com/support/motherboards/server/tigpt1u/>

IBL / FDBL Users may find information about this product listed below.

This list is subject to change:

MTSD Carrier Grade Server Roadmap
MTSD Server Presentation

On fdbl.intel.com, click on Communications/Networking, then click on Carrier and Industrial Grade Server Platforms, then click on TIGPT1U. The documents listed above can be found under the Product Marketing or Technical Sub-directories.

If you can not access the documents using the links provided, please contact your Intel sales representative for assistance.

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