

Intel[®] Carrier Grade Server TIGH2U

Configuration Guide System / Spares / Accessories List

August 2008
Rev 1.4

Reference guide to assist customers and the field in ordering the servers,
accessories and spares

~Subject to Change Without Notice~

August 2008

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| Revision | Date | Comments |
|----------|-------------|---|
| 1.0 | Dec 2007 | Production version |
| 1.1 | Feb 2008 | Updated for launch with new web links and format changes |
| 1.2 | March 2008 | Updated to reflect added support for Xeon L5410 processor; updates to accessories/spares section; misc. format/structure changes. |
| 1.3 | April 2008 | Updated Processor section, regarding heatsinks. |
| 1.4 | August 2008 | Updated to reflect addition of basic rail kit support. |

Document Table of Contents

- I. INTRODUCTION..... 4
- II. PRODUCTION SKUS..... 5
- III. PRODUCTION SPARES/ACCESSORIES LIST 10

- APPENDIX A. RACK MOUNTING OPTIONS FOR 1U AND 2U INTEL® COMMUNICATIONS
RACK MOUNT SERVERS..... 13

I. Introduction

Product Description:

The Intel® Carrier Grade Server TIGH2U is the 4th generation of the 2U x 20"D Intel® Telecom and Industrial Grade Rack Server. The TIGH2U supports the 45nm Quad-Core Intel® Xeon® processor 5400 Series with 12M L2 cache, coupling high performance with power efficiency to provide improved performance-per-watt over previous-generation rack-mount servers.

The TIGH2U is a NEBS-3 and ETSI certified product which is suited for a host of applications in the telecom Central Office and industrial environment. The server is targeted to OSS (Operations System and Support), Billing, Provisioning, Softswitch, Media Server, 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.

More product information is available at the following websites:

TIGH2U Product Overview

<http://www.intel.com/design/servers/cg/tigh2u/overview.htm>

TIGH2U Product Support

<http://www.intel.com/support/telecom/computeboards/tigh2u/>

Purpose of this Document:

This document provides details on what parts are available for ordering of the Intel® Carrier Grade Server TIGH2U production systems. This includes PID and MM# information for System SKUs, Accessories & Spares, as well as other Intel parts that are supported by the TIGH2U product.

Supported third-party components are not covered by this document, and may be found in the Tested Hardware and Operating System List (THOL) for this product.

II. Production SKUs

The TIGH2U Production SKUs that can be ordered are listed below:

| PID Order Code | Description | MM# | Min. Order Qty. |
|----------------|---|--------|-----------------|
| TLHA0201W | Intel® Carrier Grade Server TIGH2U Base Model 0 with AC Power Supply . | 890868 | 1 |
| TLHD0201W | Intel® Carrier Grade Server TIGH2U Base Model 0 with DC Power Supply . | 890910 | 1 |

See the TIGH2U Base Model 0 Configuration table further down in this section for a list of components included in each base model 0 SKU.

Production SKUs are offered as either an AC or a DC version. The Product Identification code or PID of all SKUs contains the letter "A" for AC or "D" for DC as the 4th digit of the PID.

Both Production SKUs are base model 0 SKUs, (no processor, heatsink, memory, hard drive, power cord, operating system, or plug-in adapters are provided). Those components must be ordered separately as Accessories from Intel or from third party vendors listed in the Tested Hardware and Operating System List (THOL).

Power Cords are not included with the Mod 0 system. For AC Power cords, order the NA - North American power cord below. This power cable is RoHS-compliant.

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

Note: Ensure that customers have the appropriate technical support and contact before placing the first order.

TIGH2U Base Model 0 Configuration

All Production SKUs are base model 0 SKUs (no CPU, heatsink, memory, hard drive or plug-in adapters are provided). Those components must be ordered separately as Accessories from Intel or from third party vendors listed in the Tested Hardware and Operating System List (THOL). The below table lists how many of each component is included in the Production model 0 SKU.

The table below lists which components are included in the base model 0 SKUs and which ones must be ordered separately or as optional accessories.

| Component Description | AC Mod 0 Configuration | DC Mod 0 Configuration |
|--|-----------------------------------|------------------------|
| AC power supply (600 W) | 1 included | - |
| DC power supply (600 W) | - | 1 included |
| Filler Panel in 2 nd power supply bay | 1 included | |
| Chassis (bezel, sheet metal, top cover, PCI carrier) | 1 included | |
| Server Board T5000PAL | 1 included | |
| Bezel (unpainted) | 1 included | |
| PCI Riser FH-FL (two PCI-Express and one PCI-X slots) | 1 included | |
| PCI Riser LP (two PCI-Express slots) | 1 included | |
| FB-DIMM slots (memory not included) | 8 included | |
| Trays for hot-swap 2.5" SAS Hard Disk Drives | 6 included | |
| Filler Panel in optical device bay | 1 included | |
| Rear Panel GbE NIC (Cu) ports (via Server Board) | 2 included | |
| Server Deployment Toolkit (CD) | 1 included | |
| Quick Start Guide | 1 included | |
| Power Cable | Purchase separately ¹ | |
| SW RAID 0/1/10 | Included | |
| HW RAID 5 | Optional Accessories ² | |
| Intel® Z-U130 Value Solid State Drive | Optional Accessory ² | |
| Mounting kit for Intel® Z-U130 Value Solid State Drive | Optional Accessory ² | |
| Remote Management Module 2 | Optional Accessory ² | |
| PCI-X FH-FL Riser (3 PCI-X slots) | Optional Accessories ² | |
| Ethernet I/O Module (dual Gigabit rear ports) | Optional Accessory ² | |
| SAS I/O Expansion Module (x4 external rear port) | Optional Accessory ² | |
| Rack Mount Kits | Optional Accessory ³ | |
| Rail Enabling Kit (to enable AXXBASICRAIL, AXXHERAIL, and AXXBASRAIL13 kits) | Optional Accessory ⁴ | |
| Processor (refer to "Details on Ordering Processors") | Purchase separately ⁴ | |
| Heatsink (copper required) | Accessory or purchase separately | |
| Memory | Purchase separately ⁴ | |
| Hard Disk Drive | Purchase separately ⁴ | |
| Optical Drive | Purchase separately ⁴ | |

¹Refer to AC power cord accessory in this section

²Refer to "Production Spares/Accessory List" in section III

³Refer to "Rack Mounting Options" in the Appendix

⁴Should be purchased separately (parts not listed in this document)

Notes on the TIGH2U Model 0 Configuration and Options:

- **PCI Risers**
 - The base configuration comes standard with two PCI Risers supporting up to five PCI slots. These include:
 - One low-profile riser supporting two PCI-Express (PCIe) slots
 - One full-height, full-length riser supporting three slots: two PCIe x4 and one PCI-X.
 - Additional full-height, full-length risers (below) are supported and available as accessories (*refer to "Production Spares/Accessories List" in section III*).
 - PCI-X (active): three independent PCI-X, each with maximum 133 MHz
 - PCI-X (passive): two PCI-X with maximum 100 MHz and one PCI-X (66 MHz) all on a shared PCI bus
- **HW RAID**
 - While SW RAID 0/1/10 is supported on the base configuration, HW RAID 5 support can be enabled via a set of optional accessories (*refer to "Production Spares/Accessories List" in section III*).
 - Components required are NSCRAID01W (NSC2U RAID5 Kit - includes the I-Button (license), battery cable) and the AXXMINIDIMM (128 MB Mini DIMM registered DDR-2 for RAID cache.)
 - An additional option is the AXXRSBBU3 (Intel® RAID Smart Battery Backup module provides up to 72 hours of cache memory retention when used with AXXMINIDIMM). The cable to connect the battery is included in the NSCRAID01W kit.
- **Intel® Z-U130 Value Solid State Drive**
 - Support for the Intel® Z-U130 Value Solid State Drive is available via a selection of optional accessories (*refer to "Production Spares/Accessories List" in section III*).
 - Components required are an Intel® Z-U130 Value Solid State (select desired capacity) as well as a mounting kit (TMWVSSDRIVE01W) to mount it inside the chassis.
 - Solid state drives are available in several sizes, enabling an array of product customization options. These drives securely mount inside the chassis offering
 - Storage: independent of traditional disk drives
 - Boot OS from solid state drive; store data on hard drive
 - Store backup image of boot drive
 - Add a server partition to the server
 - Any other customer design options

- **IO Option Modules**
 - These modules, available as optional accessories, attach to the system board via a proprietary connector, and provide additional IO through the rear bulkhead.
 - The **AXXGBIOMO** option module provides two Gigabit Ethernet NICs.
 - The **AXXSASIOMOD** option module provides one x4 external SAS port.
 - Note: Using the AXXGBIOMOD on the TIGH2U may result in non-compliance of NEBS GR-63 short term operating conditions.
 - *For ordering details, refer to “Production Spares/Accessories List” in section III.*

- **Air Filters** are not provided with the TIGH2U base system. If air filters are required by customer, then customer must purchase them separately.

- **Rack Mounting Options**
 - Rack mounting kits for 2-post or 4-post, 19-inch or 23-inch racks are offered for this product. These include TMLCMOUNT21, TMLPMOUNT41, TMLPMOUNT51, TMLPMOUNT52, and TMLPSLIDE01. The Rail Enabling Kit (TMLREK01) is not required for these rack mount kits.
 - ❖ *Please refer to Appendix A to determine the correct options to suit your needs. For ordering details, refer to “Production Spares/Accessories List” in section III.*
 - If AXXBASICRAIL, AXXHERAIL, or AXXBASRAIL13 will be used, then a Rail Enabling Kit (TMLREK01) must be purchased to enable support of these rails.
 - ❖ *For ordering details, refer to “Production Spares/Accessories List” in section III.*

For more detailed information on the TIGH2U, refer to the web links below.

Additional Product Details

Check the following web site for more information on the TIGH2U:

<http://www.intel.com/design/servers/cg/tigh2u/overview.htm>

Support.Intel.Com Users

Product information including specifications, compatibility, user’s guides, drivers, firmware, and software associated with the Intel® Carrier Grade Server TIGH2U is available from Intel Customer Support.

Intel® Carrier Grade Server TIGH2U Support Web Site

<http://www.intel.com/support/telecom/computeboards/tigh2u/>

If you can not access the documents using the links provided, please contact your FAE/FSE for assistance.

Details on Ordering of Processors:

The TIGH2U supports the Quad-Core Intel® Xeon® processor 5400 Series. Ordering details for the CPUs for use in TIGH2U are listed below. These should only be ordered as Tray processors (see note below).

Quad-Core Intel® Xeon® Processors Supported by TIGH2U:

| Processor Number | Long Life | Cores | Speed | TDP | FSB | Tray Processor | |
|------------------|-----------|-------|----------|-----|----------|----------------|--------|
| | | | | | | Product Code | MM# |
| E5440 | Yes | Quad | 2.83 GHz | 80W | 1333 MHz | EU80574KJ073N | 893484 |
| L5410 | Yes | Quad | 2.33 GHz | 50W | 1333 MHz | EU80574JJ053N | 893491 |

Notes:

- The above processors are tested and supported by Intel and are recommended for long availability and support.
- Heatsinks
 - Only Tray processors are recommended with this product. The processor thermal solution for this server must include the use of a copper heat sink (e.g. see NSCSNKCLP01 in the Spares/Accessories list below). There are no clips needed for this heat sink, since the heat sink includes captive screws.
 - The boxed processors previously listed in the “supported” table have been removed since these now include an aluminum heat sink which does not provide sufficient heat dissipation to meet NEBS thermal requirements. For this reason, Intel does not recommend the use of Boxed processors with this product.

Note that CPU product codes can change, and that the above is a snapshot current as of 8/29/2008. Please consult with your Intel representative for SSpec or MM# which may be needed for ordering the CPU. Any differences in functionality is reported in Monthly Specification updates available on <http://developer.intel.com>.

III. Production Spares/Accessories List

Below are the Spares parts and Accessories that may be ordered with the TIGH2U system. Any of these parts may be ordered as spares for part replacement purposes or as additional customer inventory. Some of the parts below are not included in the TIGH2U system base model and may be ordered as accessories for purposes of upgrading the base model to include additional features.

Note, for a listing of additional compatible accessories, such as Optical Devices for use with the CD-ROM carrier, please refer to the Tested Hardware and Operating System List (THOL).

| PID Order Code | Description | Contents | Included in Base Model (Y/N) | MM# | Min. Order Qty |
|--------------------------|---|--|------------------------------|--------------------|---|
| TLIACPSU003 | TIGI2U AC Power Supply | AC power supply | Y <i>(one in AC SKU)</i> | 880110 | 1 |
| TLIDCPSU003 | TIGI2U DC Power Supply | DC power supply, input power connector | Y <i>(one in DC SKU)</i> | 880116 | 1 |
| NSCSNKCLP01 | NSC2U CPU Heatsink | Heatsink (copper) | N | 891200 | 1 |
| TLHBEZELU004W | TIGH2U Bezel (Unpainted), 12-pack | Unpainted Bezel, packaged in cartons of 12 | Y | <i>coming soon</i> | 12 <i>(order in multiples of 12)</i> |
| HW RAID | | | | | |
| NSCRAID01W | NSC2U RAID5 Kit | I-Button (license), battery cable (<i>battery or mini-DIMM not included</i>) | N | 890202 | 1 |
| AXXRSBBU3 | Intel® RAID Smart Battery Backup module: <i>for use with Intel® Integrated Server RAID (requires NSCRAID01W plus mini DIMM), provides up to 72 hours of cache memory retention when used with AXXMINDIMM.</i> | Battery backup kit | N | 883471 | 5 <i>(order in multiples of 5)</i> |
| AXXMINDIMM | 128 MB Mini DIMM registered DDR-2 for RAID cache. <i>Note: enabling RAID capability also requires Intel RAID Activation Key-- NSCRAID01W</i> | Mini-DIMM | N | 881258 | 5 <i>(order in multiples of 5)</i> |
| Remote Management | | | | | |
| AXXRMM2 | Intel® Remote Management Module 2 (RMM2) - Single Pack | RMM2 with GCM (single-pack) | N | 894383 | 1 |
| AXXRMM2BULK | Intel® Remote Management Module 2 (RMM2) – 10-Pack | RMM2 with GCM (10-pack) | N | 894385 | 10 <i>(specify '1' for each 10-pack)</i> |

Production Spares/Accessories List (continued)

| PID Order Code | Description | Contents | Included in Base Model (Y/N) | MM# | Min. Order Qty |
|-----------------------------------|---|--|------------------------------|--------|----------------|
| PCI Risers and I/O Options | | | | | |
| ASR2500FHR | SR2500 (2U) Full Height PCI-Express riser (two PCI-Express slots, one PCI-X slot) | Riser | Y | 880515 | 1 |
| ADRACTRIS | SR2500 (2U) Full Height PCI-X "active" high performance riser card (three PCI-X slots) | Riser | N | 856546 | 1 |
| ADRPCIXRIS | SR2500 (2U) Full Height PCI-X "passive" riser card (three PCI-X slots) | Riser | N | 863135 | 1 |
| FSR2500LPR | Two-slot Low Profile PCI-Express riser | Riser | Y | 880516 | 1 |
| AXXGBIOMOD | Dual Gigabit Ethernet I/O Module | Dual Gigabit rear ports | N | 880518 | 1 |
| AXXSASIOMOD | Four-port external SAS I/O Expansion Module | x4 external rear port | N | 880517 | 1 |
| Solid State Drives | | | | | |
| TMWVSSDRIVE01W | Mounting kit for Intel® Z-U130 Value Solid State Drive <i>Requires Intel® Z-U130 Value Solid State Drive (purchased separately).</i> | Interposer board, cable, mounting screws (<i>flash drive not included</i>) | N | 893165 | 1 |
| SSDUSMS0001GL10 | Intel® Z-U130 Value Solid State Drive - 1 GB, Low Profile Connector <i>Requires TMWVSSDRIVE01W</i> | 1 GB Module – Low Profile Connector | N | 890945 | 10 |
| SSDUSMS0002GL10 | Intel® Z-U130 Value Solid State Drive – 2 GB, Low Profile Connector <i>Requires TMWVSSDRIVE01W</i> | 2 GB Module – Low Profile Connector | N | 890943 | 10 |
| SSDUSMS0004GL10 | Intel® Z-U130 Value Solid State Drive - 4 GB, Low Profile Connector <i>Requires TMWVSSDRIVE01W</i> | 4 GB Module – Low Profile Connector | N | 890941 | 10 |
| Spares | | | | | |
| TLHBEZEL004W | TIGH2U Bezel, painted | Bezel, painted (gray) | Y | 890813 | 1 |
| TLHTAM004W | TIGH2U Telco Alarms Module with LED pipe | Module, LED pipe | Y | 890809 | 1 |
| NSCSASBSBDW | NSC2U T5000PAL Server board | Board | Y | 889828 | 1 |
| NSCSASBKPLNW | NSC2U SAS Backplane | Backplane | Y | 889829 | 1 |
| NSCBRIDGEBDW | NSC2U Bridge board | Board, insulator | Y | 889852 | 1 |
| TLHFPIOBD04W | TIGH2U Front Panel I/O Board | Board | Y | 890773 | 1 |

Production Spares/Accessories List (continued)

| PID Order Code | Description | Contents | Included in Base Model (Y/N) | MM# | Min. Order Qty |
|---|--|--|------------------------------|-----------------------------|---|
| Spares | | | | | |
| TLHSICBL004W | TIGH2U System Interconnect Cable Kit | Flex cable (SAS interface, front panel signals), front panel power cable, serial port cable, CD-ROM cable, alarm cable, TAM module cable | Y | 891494 | 1 |
| TLHFANSETW | TIGH2U Fan Assembly (set of 4) | 80mm CPU fans (2), 40mm PCI fans (2), plastic fasteners (8) | Y | 893601 | 1 |
| NSCPWRDISBDW | NSC2U Power Distribution Board | Power distribution board, with integrated wire harness | Y | 889805 | 1 |
| NSCDVDENG TABW | NSC2U DVD Drive Engagement Tab | Blue plastic engagement bracket & black plastic locking clip, screws | Y | 889845 | 1 |
| FXX25HDDCAR | TIGW1U SAS HDD carrier | Carrier, black plastic filler, screws (4) | Y | 881681 | 10 <i>(order in multiples of 10)</i> |
| Rack Mount Kits (refer to Appendix A for additional details) | | | | | |
| TMLCMOUNT21 | Intel® Server Spare TMLPMOUNT21 | | N | 881904 | 10 |
| TMLPMOUNT41 | Intel® Server Spare TMLPMOUNT41 | | N | 881907 | 10 |
| TMLPMOUNT51 | Intel® Server Spare TMLPMOUNT51 | | N | 881934 | 1 |
| TMLPMOUNT52 | Intel® Server Spare TMLPMOUNT52 | | N | 881935 | 1 |
| TMLPSLIDE01 | Intel® Server Spare TMLPSLIDE01 | | N | 881915 | 10 |
| AXXBASICRAIL | SR2500 Basic Slide Rail Kit. <i>NOTE: Does not support Cable Management Arm.</i> <i>NOTE: Requires TMLREK01 on TIGH2U</i> | | N | 881096 | 1 |
| AXXBASRAIL13 | SR1500/SR1550 Basic Slide Rail Kit. <i>NOTE: Does not support Cable Management Arm.</i> <i>NOTE: Requires TMLREK01 on TIGH2U</i> | | N | 899080 | 1 |
| AXXHERAIL | SR1500/SR1550/SR2500 - Tool-less, full extension sliding rail kit. <i>NOTE: Best used with racks featuring square or round mounting holes</i> <i>NOTE: Requires TMLREK01 on TIGH2U</i> | | N | 881328 | 1 |
| TMLREK01 * | Rail Enabling Kit <i>Enables AXXBASICRAIL, AXXBASRAIL13, and AXXHERAIL kits</i> | Rackmount ears (2), rackmount shoulder screws (4), screws (2) per kit | N | 898926 <i>(see note)</i> | 10 <i>(order in multiples of 10)</i> |

**Note: TMLREK01 to be orderable starting in October 2008.*

Appendix A. Rack Mounting Options for 1U and 2U Intel® Communications Rack Mount Servers

Rack mounting kits for 2-post or 4-post, 19-inch or 23-inch racks are offered for this product. For ordering details, refer to "Production Spares/Accessories List" in section III. Please refer to the tables below for the correct options to suit your needs.

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. Compatible rack mounting kits can also be obtained from 3rd party suppliers.

All rack mount kits listed are suitable for 1U and 2U Intel® Communications Rack Mount Servers. Installation instructions are included in each kit.

| 2-post Rack Mounting Kit Options | | | | | | | |
|----------------------------------|------------|---------|------------|--------|----------------------------|---------------|------|
| Applicable kits: | Rack width | | Post depth | | Rack fastener hole spacing | | |
| | 19 inch | 23 inch | 3 inch | 5 inch | EIA-Wide | EIA-Universal | ETSI |
| TMLCMOUNT21 | ● | | ● | ● | ● | ● | |
| TMLPMOUNT41 | ● | | ● | ● | | ● | |
| TMLPMOUNT51 | ● | | ● | ● | ● | ● | |
| TMLPMOUNT52 | | ● | ● | ● | ● | ● | ● |

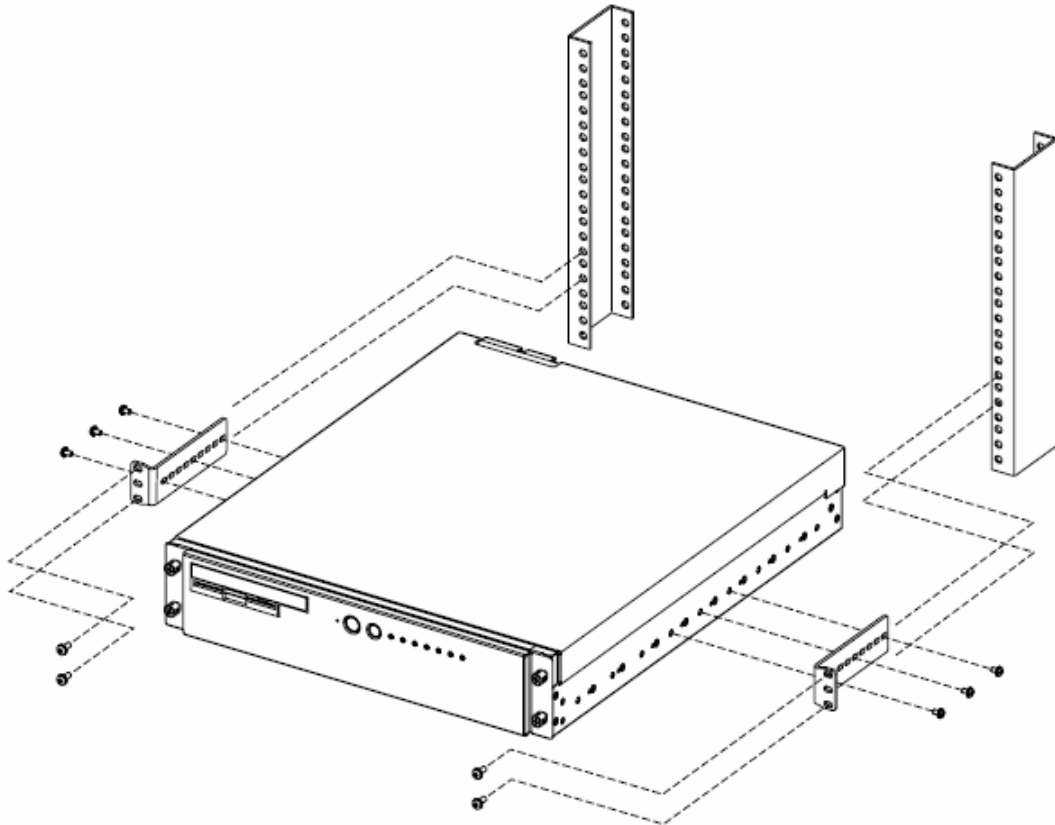
| 4-post Rack Mounting Kit Options | | | | | | | |
|----------------------------------|------------|---------|----------------------------------|------------------------|----------------------------|---------------|------|
| Applicable kits: | Rack width | | Front-post to rear-post distance | | Rack fastener hole spacing | | |
| | 19 inch | 23 inch | Min (inches) | Max (inches) | EIA-Wide | EIA-Universal | ETSI |
| TMLPMOUNT41 | ● | | 20 | 24 | | ● | |
| TMLPMOUNT51 | ● | | 20 | 24 | ● | ● | |
| TMLPMOUNT52 | | ● | 20 | 24 | ● | ● | ● |
| TMLPSLIDE01 [†] | ● | | 22.5 | 28 or 34 ^{††} | | ● | |

[†]The TMLPSLIDE01 kit contains server securing brackets. The rails and other options for mounting the server are available through other vendors such as Accuride (<http://www accuride.com/index2.php>).

^{††}34-inch span requires the optional Accuride "Long Bracket" kit.

TMLCMOUNT21

The TMLCMOUNT21 kit mounts Intel® Communication Rack Mount Servers to a 2-post, central office type, 19" wide rack. This kit consists of simple L-shaped brackets; which fasten to the sides of the server and to the rack.



TMLCMOUNT21

TMLPMOUNT41, TMLPMOUNT51 and TMLPMOUNT52

TMLPMOUNT41/51/52 series mounts Intel® Communication Rack Mount Servers to 2-post or 4-post racks.

TMLPMOUNT41 and TMLPMOUNT51 are used for mounting servers on 19" wide racks. These racks are considered standard EIA (universal hole spacing) racks.

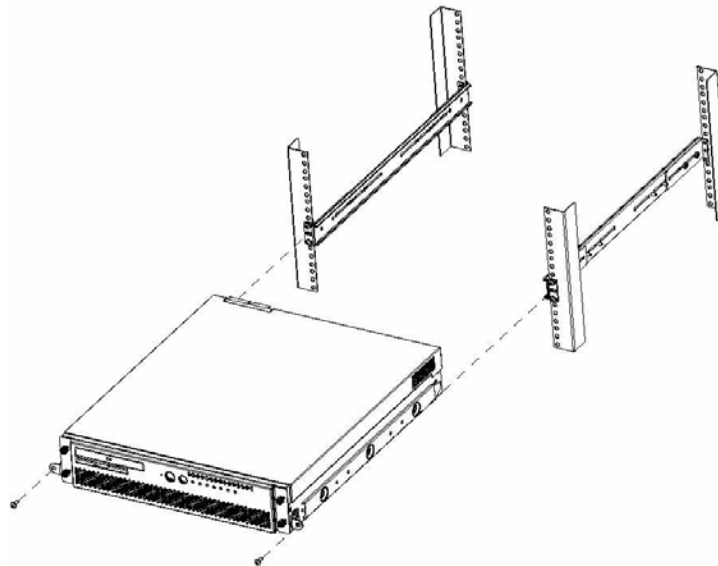
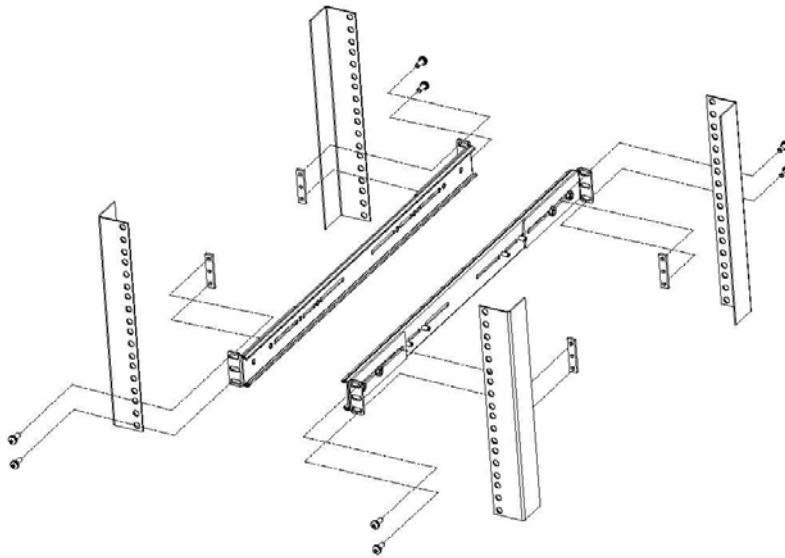
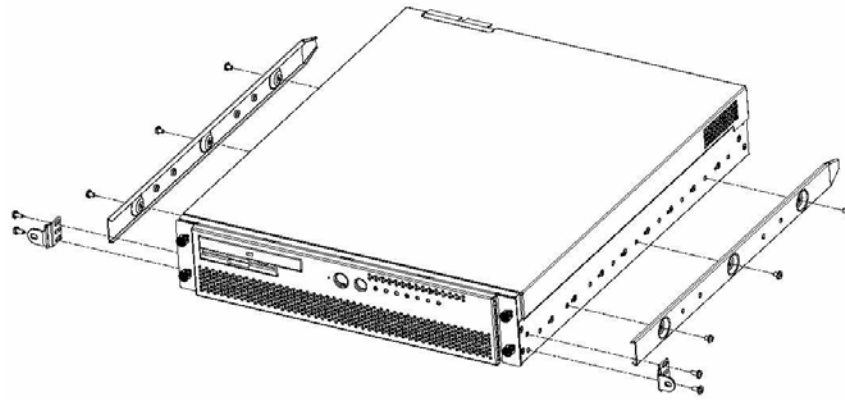
TMLPMOUNT52 is used for mounting servers on 23" wide racks. These racks could be standard EIA (universal or wide hole spacing) or ETSI (European) racks.

TMLPMOUNT41/51/52 series are designed with a slide-in rail-type system. Although the mounts are designed as rails, they are not sliding rails. This means the servers can be slid into the racks for installation purpose, but the rails are not designed to support a mounted server during service.

| TMLPMOUNT4x/5x feature comparison | | | | | | |
|-----------------------------------|--------------------------------|-----------------------------|--|-----------------------|--|------------------------------|
| | Slide pull-out locking feature | Slide interface material | 4-post rack hole spacing | 2U-tall nut bar | 2-post chassis securing screw location | "HP Mulan rack interference" |
| TMLPMOUNT41 | No ¹ | Plastic strips ² | EIA-Universal | Not included | Side access ⁶ | Interference |
| TMLPMOUNT51 | Yes | Xylan coating ³ | EIA-Wide or EIA-Universal ⁴ | Included ⁵ | Front access | No Interference |
| TMLPMOUNT52 | Yes | Xylan coating ³ | EIA-Wide, EIA-Universal or ETSI | Included ⁵ | Front access | N/A |

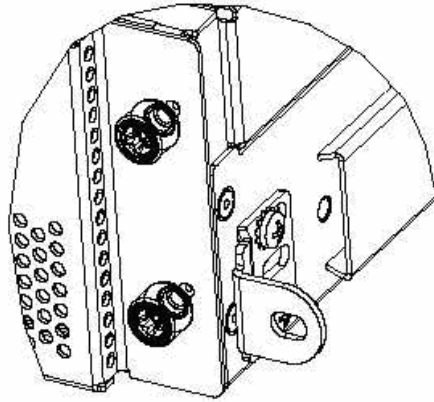
Notes:

1. Extra care must be exercised with TMLPMOUNT41 to securely hold the server with one's hands when sliding it out of the rack, else the server may fall to the ground as its being removed.
2. Plastic strips on TMLPMOUNT41 have peeled off in some customer installations. Consequence: The parts are usable, but the server may have somewhat of a "scrape-in feel" rather than "slide in". Also, the rails will fit sloppier, so the side-located chassis securing screws may be difficult to align in 2-post installations. Replacement material is available from the plastic strip manufacturer.
3. Xylan is a tough, low-friction coating similar to Teflon.
4. EIA-Wide spacing doesn't have the interstitial hole that is present in EIA-Universal. TMLPMOUNT51 contains an adapter bracket to overcome this EIA-Wide issue.
5. This component (2U Nut Bar) enables installation of a rail kit into a 1U rack slot when there is already equipment installed both above and below that open slot.
6. The sides of the server must be accessible when using TMLPMOUNT41 in 2-post racks.

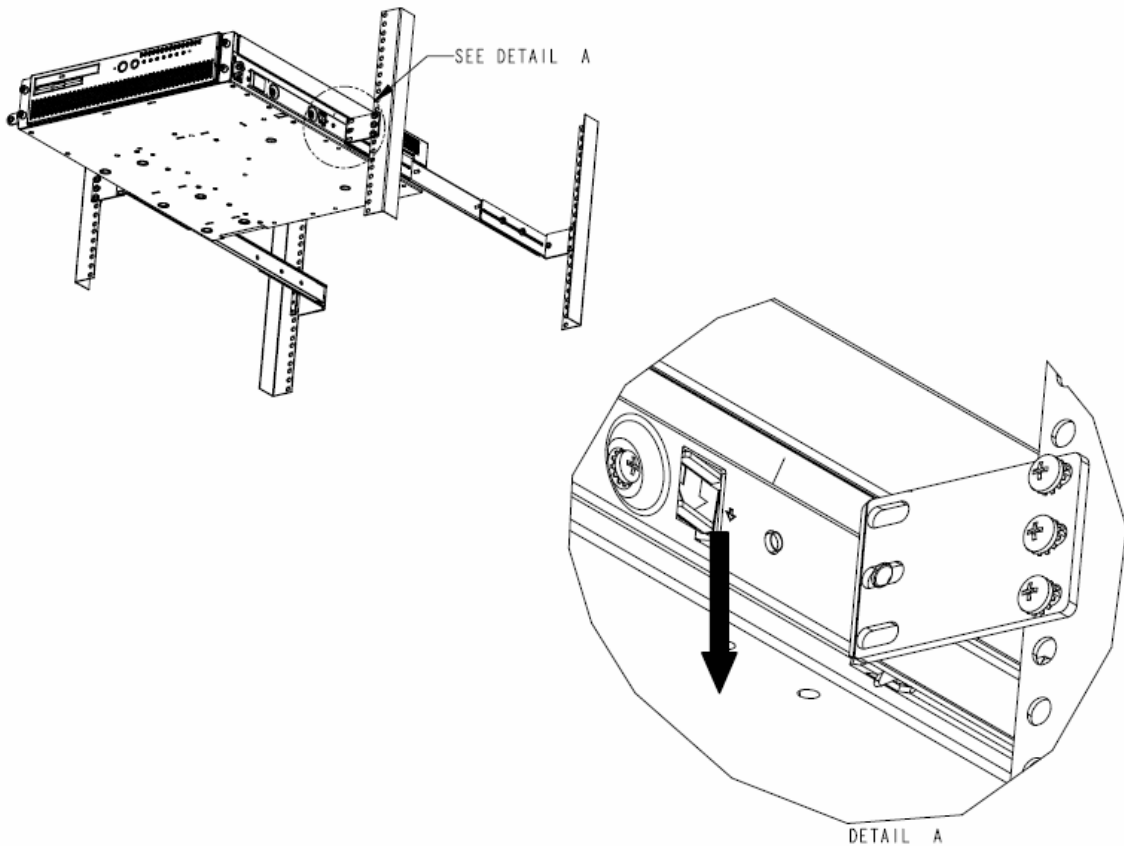


The diagrams above summarize the components and “slide-in rail-type” system of the TMLPMOUNT41. It can be adapted for a 2-post or 4-post installation.

The main difference between the TMLPMOUNT41 and TMLPMOUNT51/52 series is that the TMLPMOUNT41 series uses a screw to lock the server in place via the Universal Mounting Bracket, whilst the TMLPMOUNT51/52 series has an additional Slide Pull-Out Locking feature.



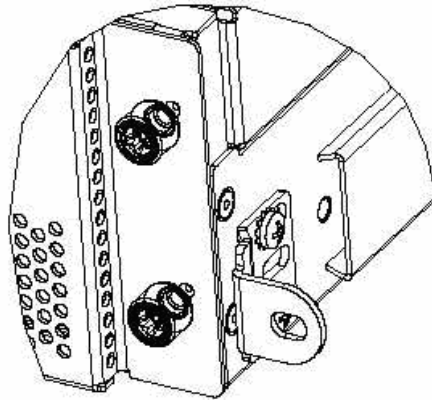
The Universal Front Mounting Bracket on the TMLPMOUNT41



The Slide Pull-Out Locking feature on the TMLPMOUNT51/52

TMLPSLIDE01

The TMLPSLIDE01 is an **accessory kit** designed for use in conjunction with slide rails to produce a rack mounted serviceable server. The TMLPSLIDE01 kit contains two Universal Front Mounting Brackets that secure the server to the front of the rack. The sliding rails and optional mounting brackets required to mount the server must be purchased through the channel. For example, the Accuride 22-inch Model 305A-LR slide rails are designed to mount a server for "in-rack service." This example would also use an Accuride mounting bracket kit and the TMLPSLIDE01.



Universal Front Mounting Bracket with securing tab

Note: Using slide rails may result in non-compliance with Seismic Zone 4 requirements of NEBS-3 certification.