Intel® Server System Air Duct Kit AWTCOPRODUCT Installation Guide

A Guide for Technically Qualified Assemblers of Intel identified Subassemblies/Products

H42584

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Safety Information

Important Safety Instructions

Read all caution and safety statements in this document before performing any of the instructions. See *Intel® Server Boards and Server Chassis Safety Information* at http://www.intel.com/support/motherboards/server/sb/cs-010770.htm.

Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warn- und Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel®-Serverplatinen und -Servergehäusen unter http://www.intel.com/support/motherboards/server/sb/cs-010770.htm.

重要安全指导

在执行任何指令之前，请阅读本文件中的所有注意事项及安全声明。并参阅 http://www.intel.com/support/motherboards/server/sb/cs-010770.htm 上的 *Intel® Server Boards and Server Chassis Safety Information*（《Intel® 服务器主板与服务器机箱安全信息》）。

Consignes de sécurité

Lisez attention toutes les consignes de sécurité et les mises en garde indiquées dans ce document avant de suivre toute instruction. Consultez *Intel® Server Boards and Server Chassis Safety Information* rendez-vous sur le site http://www.intel.com/support/motherboards/server/sb/cs-010770.htm.

Instrucciones de seguridad importantes

Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea *Intel® Server Boards and Server Chassis Safety Information* en http://www.intel.com/support/motherboards/server/sb/cs-010770.htm.

Warnings

Heed safety instructions: Before working with your server product, whether you are using this guide or any other resource as a reference, pay close attention to the safety instructions. You must adhere to the assembly instructions in this guide to ensure and maintain compliance with existing product certifications and approvals. Use only the described, regulated components specified in this guide. Use of other products/components will void the UL listing and other regulatory approvals of the product and will most likely result in noncompliance with product regulations in the region(s) in which the product is sold.

System power on/off: The power button DOES NOT turn off the system AC power. To remove power from the system, you must unplug the AC power cord from the wall outlet. Make sure the AC power cord is unplugged before you open the chassis, add, or remove any components.

Hazardous conditions, devices and cables: Hazardous electrical conditions may be present on power, telephone, and communication cables. Turn off the server and disconnect the power cord, telecommunications systems, networks, and modems attached to the server before opening it. Otherwise, personal injury or equipment damage can result.

Electrostatic discharge (ESD) and ESD protection: ESD can damage disk drives, boards, and other parts. We recommend that you perform all procedures in this chapter only at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis ground—any unpainted metal surface—on your server when handling parts.

ESD and handling boards: Always handle boards carefully. They can be extremely sensitive to ESD. Hold boards only by their edges. After removing a board from its protective wrapper or from the server, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the board wrapper. Do not slide board over any surface.

Installing or removing jumpers: A jumper is a small plastic encased conductor that slips over two jumper pins. Some jumpers have a small tab on top that you can grip with your fingertips or with a pair of fine needle nosed pliers. If your jumpers do not have such a tab, take care when using needle nosed pliers to remove or install a jumper; grip the narrow sides of the jumper with the pliers, never the wide sides. Gripping the wide sides can damage the contacts inside the jumper, causing intermittent problems with the function controlled by that jumper. Take care to grip with, but not squeeze, the pliers or other tool you use to remove a jumper, or you may bend or break the pins on the board.
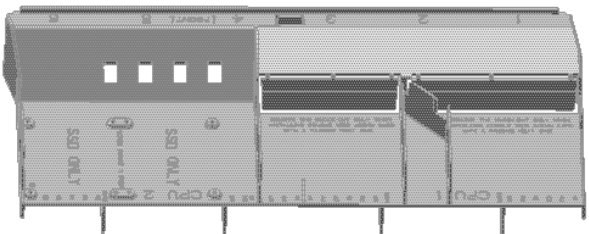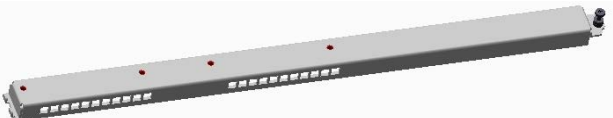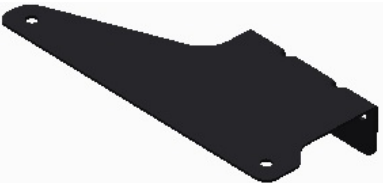
Introduction

The Intel® Server System Air Duct Kit **AWTCOPRODUCT** is designed as an accessory kit for the Intel® Server System R2000WT Product Family (2U rack server system integrated with an Intel® Server Board S2600WT). The contents of this kit should be paired with the contents of Intel® Accessory Kit **A2UL16RISER2**. Together they provide the necessary components to configure the server system with one or more Intel® Xeon Phi™ Coprocessor Card(s) or other high power (≥75W) add-in cards which utilize a passive (no fan) heat sink.
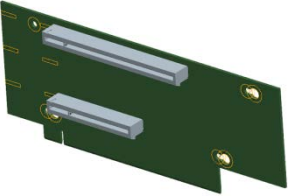
(Note: High power add-in cards that utilize an active heat sink can also be used with this kit. When using a high power add-in card with an active heat sink, the air duct air flow knock-out panels are NOT removed.)

This *Installation Guide* provides high level installation instructions for all components included in both accessory kits. For more detailed component installation instructions and additional server system information, refer to the *Intel® Server System R2000WT Product Family System Integration and Service Guide* or the *Intel® Server System R2000WT Product Family Technical Product Specification* which are available to download at http://www.intel.com/support.

Intel® Server System Air Duct Kit AWTCOPRODUCT Contents List

Description	Illustration
1 – Air Duct	
1 – Shipping Bracket + 4 fastener screws	
2 – GPGPU Mounting Adapter + 3 ea fastener screws	

Intel® 2U 2-slot PCIe Riser Kit A2UL16RISER2 Contents List

Description	Illustration
1 – 2-slot PCIe Riser Card	
1 – Auxiliary 12V Power Cord	

BIOS Setup Option Requirements

The latest system software updates should be installed when integrating an Intel® Xeon Phi™ coprocessor card into the system. The latest System Update Package (SUP) can be downloaded from the following Intel web site: http://www.intel.com/support

In order to support the Intel® Xeon Phi™ coprocessor card, the following BIOS options must be configured:

- MMIO over 4GB = Enabled
- MMIO Size = 256G

The BIOS Setup Utility is accessed by pressing the <F2> key during system POST.

Hardware Installation

Note: For more detailed system installation instructions, refer to the *Intel® Server System R2000WT Product Family System Integration and Service Guide* which can be downloaded from the following Intel website: http://www.intel.com/support

1. Remove the system top cover.

2. Remove the original air duct from the server chassis and discard.

3. Remove the PCI riser assembly from the server chassis.

4. (If Present) Remove the original PCI riser card from the PCI riser assembly and discard (see Figure 1 below).
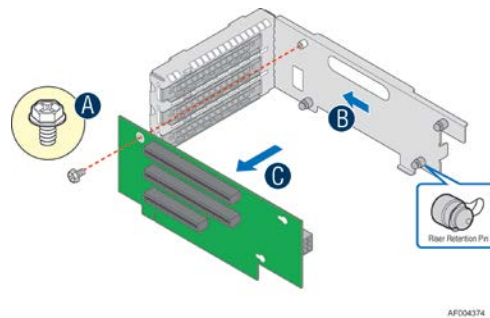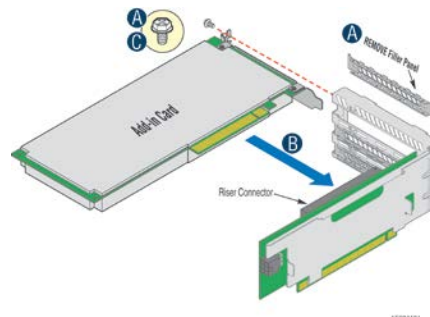

Figure 1. Existing PCIe Riser Card Removal

5. Install the new 2-slot PCI riser card onto the PCI riser assembly as shown (see Figure 2 below).
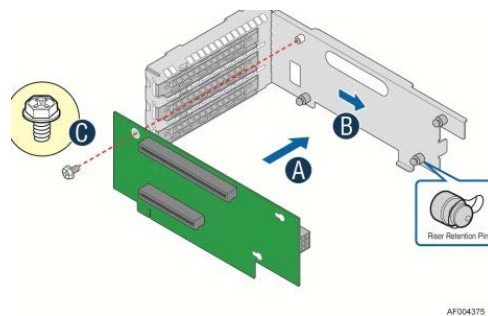
**Figure 2. 2-slot PCIe Riser Card Installation**

6. Install the Intel® Xeon Phi™ coprocessor card or other high power add-in card into the top X16 PCIe* add-in card slot (see Figure 3 below).

Figure 3. PCIe Add-In Card Installation

7. The air duct includes two air flow knock-out panels. One knock-out panel is removed for each double wide passively cooled (no fan) add-in card being installed. Do NOT remove both knock-out panels when installing only one add-in card. The knock-out panel should only be removed from the air duct directly behind the add-in card being installed (see Figure 4 below). Knock-out panel removal may require a small cutting tool to cut through each of the three plastic attach points.

Advisory Note: The knock-out panels must remain in place for all double wide cards that utilize an active heat sink (with fan) and for all other PCIe add-in cards being installed. Once the plastic knock-out is removed, it cannot be re-installed.
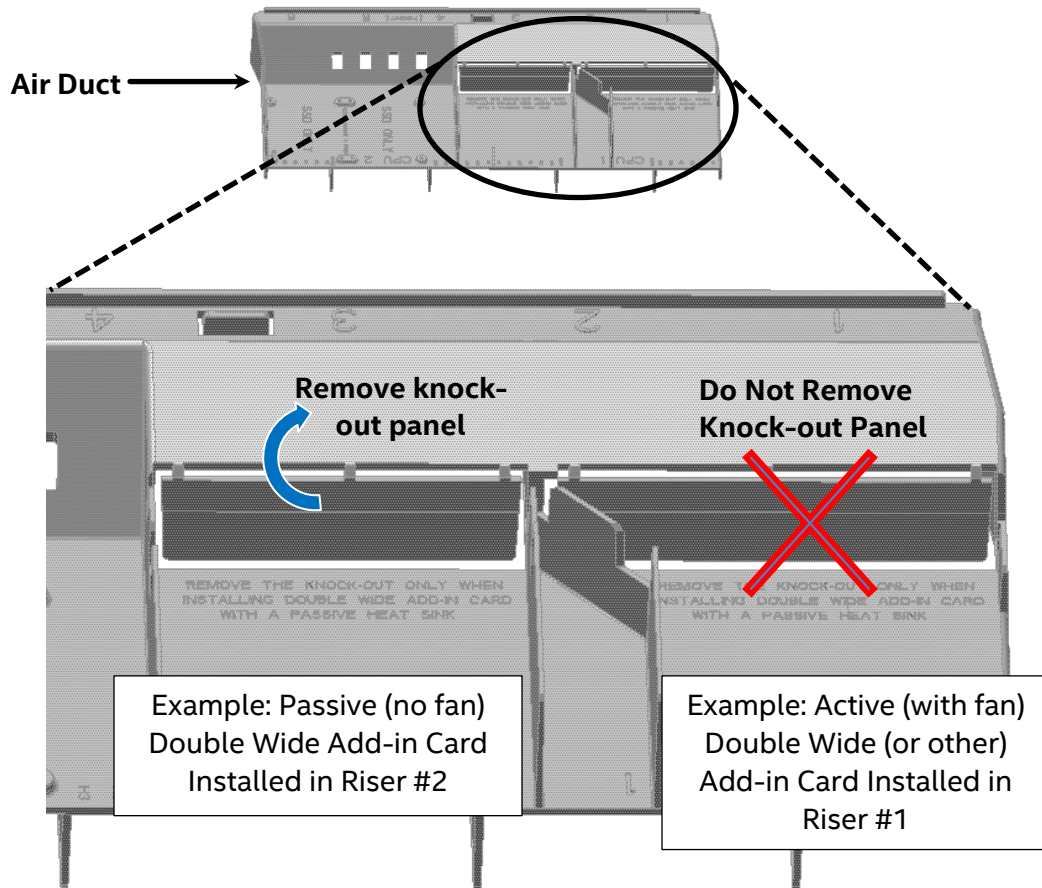
Figure 4. Air Flow Knock-out Removal

8. To install the new air duct, align the three tabs on the front edge of the air duct with the matching slots on the system fan assembly. Lower the air duct into the server system (see Figure 5 below). Verify all cables along the chassis sidewalls are clear of the air duct allowing it to sit flat and secure.
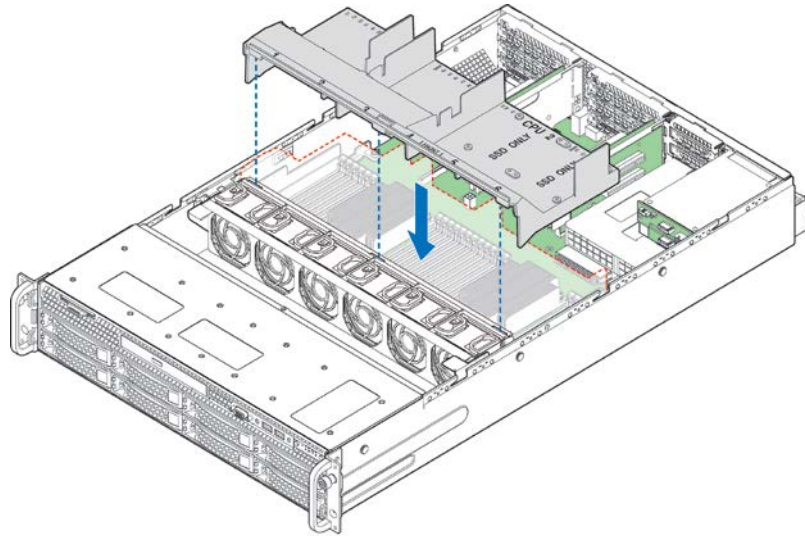

Figure 5. Air Duct Installation

Advisory Note: Installation of the shipping bracket is required when an Intel® Xeon Phi™ coprocessor card or a non-Intel GPGPU type add-in card is installed, and the system is expected to be exposed to any level of shock or vibration or is transported to the end user location. Failure to install the shipping bracket when the system is exposed to these conditions has the potential to cause serious damage to various components within the system.

9. To install the shipping bracket, latch the hooks on the left side of the bracket to the receiver panel on the left chassis side wall and rotate the bracket down over the air duct.

10. Tighten the fastener screw on the right side of the bracket to the threaded receiver hole located on the right chassis wall (see Figure 6 below).
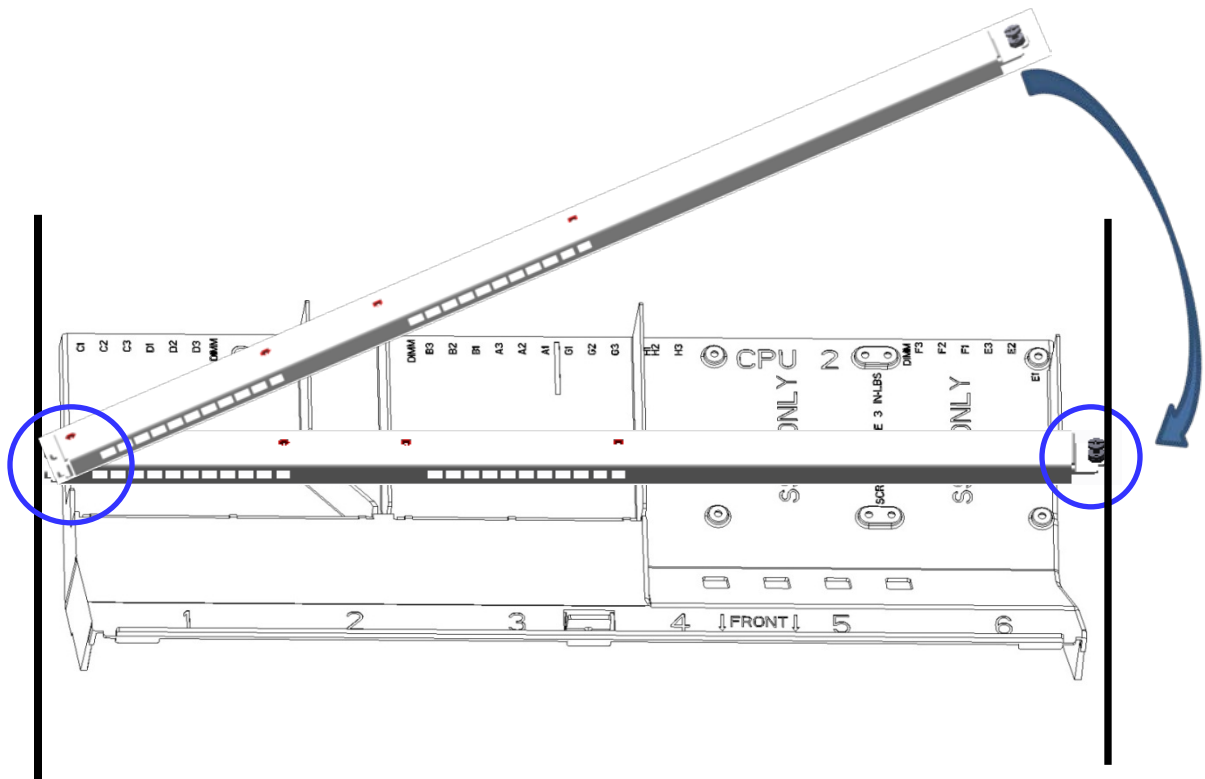
Figure 6. Shipping Bracket Installation

11. Install the riser card assembly into the server.

Note: If a non-Intel GPGPU is installed, using three fastener screws, attach the mounting adapter to the back edge of the non-Intel GPGPU add-in card.

12. Using two fastener screws, secure the Intel® Xeon Phi™ coprocessor card or non-Intel GPGPU card to the shipping bracket.

13. Connect one end of the auxiliary 12V power cable to the 6- and/or 8-pin power connector(s) on the add-in card and the other end of the power cable to the white 4-pin OPT_12V_PWR connector on the server board.

14. Install the system top cover.