



*This Technical Advisory describes an issue which may or may not affect the customer's product*

# Intel Technical Advisory

TA-1021-3

5200 NE Elam Young Parkway  
Hillsboro, OR 97124

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## PCIe Gen 3.0 Add-in Adapter Support Issue

### Products Affected

Intel® Server Board S1400FP Product Family  
Intel® Server Board S1400SP Product Family  
Intel® Server Board S1600JP Product Family  
Intel® Server Board S2400EP Product Family  
Intel® Server Board S2400GP Product Family  
Intel® Server Board S2400LP Product Family  
Intel® Server Board S2400SC Product Family  
Intel® Server Board S2600CO Product Family  
Intel® Server Board S2600CP Product Family  
Intel® Server Board S2600GL Product Family  
Intel® Server Board S2600GZ Product Family  
Intel® Server Board S2600IP Product Family  
Intel® Server Board S2600JF Product Family  
Intel® Server Board S2600WP Product Family  
Intel® Server Board S2400BB Product Family  
Intel® Workstation Board W2600CR Product Family  
Intel® Server System H2000JF Product Family  
Intel® Server System H2000LP Product Family  
Intel® Server System H2000WP Product Family  
Intel® Server System P4000CP Product Family  
Intel® Server System P4000GP Product Family  
Intel® Server System P4000IP Product Family  
Intel® Server System P4000SC Product Family  
Intel® Server System R2000SC Product Family  
Intel® Server System R1000EP Product Family  
Intel® Server System R1000GZ/GL Product family  
Intel® Server System R2000GZ/GL Product family  
Intel® Server System R1000BB Product family  
Intel® Server System R2000BB Product family  
Intel® Server System R2000IP Product Family

### Description

Intel has discovered that PCIe Gen3 adapters operating at Gen3 speed may generate errors in the System Event Log (SEL) when installed in one of the server boards listed above. This issue may affect any adapter operating at PCIe Gen3 speed when used in the standard PCIe connector slots or when connected to the Storage IO connectors on these products. Further investigation shows these adapters do not generate error messages in the SEL when running in PCIe

Gen 2 mode. Intel has verified that the PCIe Gen 3 capable add-in adapters listed below in the Corrective Action/Resolution section are not subject to this issue when running at Gen3 speed.

### Root Cause

This issue appears to be specific to the signaling characteristics between the server board PCIe Gen 3 slot or Storage IO Module connector and the specific adapters being used. Intel is investigating the root cause and working to correct this issue as quickly as possible.

### Corrective Action / Resolution

As an interim step until root cause and corrective action is determined, Intel is releasing a BIOS update to avoid the potential issue by limiting the PCIe slot speed to Gen2 unless the add-in adapters are PCIe Gen 3 tested on the Intel® Server Boards listed above. Installing a PCIe Gen 3 capable adapter in the system without updating the BIOS is not supported and may result in the errors described in this document. Please upgrade your system BIOS to version R01.06.0002 or a subsequent version. The System Upgrade Package (SUP) including the latest BIOS is available on the Intel web site at (<http://downloadcenter.intel.com/>).

The list of tested PCIe Gen 3 capable adapters is shown in the below table. This Technical Advisory will be updated at the end of each quarter to include additional tested PCIe Gen 3 capable adapters.

Vendor	Model	Date Added
Mellanox*	Adapters based on Mellanox* ConnectX*-3 Solutions.	October, 2012

Adapters listed in the matrix above may not all have been tested for compatibility with all of the server boards at the top of this document. To verify compatibility of the adapter with a specific server board, please use the Tested Hardware and O/S List (THOL) listed on the Server Configurator Tool available at (<http://serverconfigurator.intel.com/default.aspx>).

Please contact your Intel Sales Representative if you require more specific information about this issue.

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