

# intel® Technical Advisory

TA-706-1

5200 NE Elam Young Parkway  
Hillsboro, OR 97124

August 2, 2004

## Intel® E7520 MCH Transposed Interrupt Messages across Hub Interface Erratum: Impact to Intel® Server Board SE7520JR2

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### Products Affected

Product Code	MM #	PBA#
SE7520JR2SCSID1	861068	C53662-401
SE7520JR2SCSID2	861067	C53661-501
SE7520JR2ATAD1	861061	C53660-301
SE7520JR2ATAD2	861066	C53662-401
BJRDDR1BB	861064	C53662-401
BJRDDR2BB	861065	C53661-501
BJRDDR1SATABB	861848	C53660-301

### Description

An erratum affecting PCI Express\* slot capabilities has been found in the Intel® E7520 server chipset during testing and is root caused. Please reference *Intel® E7520 MCH Specification Update Erratum #29: "Transposed Interrupt Messages across Hub Interface Erratum"* for a complete description of the MCH errata. The Intel® Server Board SE7520JR2 is affected by this erratum.

Intel Server Board SE7520JR2 based systems running with a single processor thread and operating in legacy PIC mode or virtual wire Mode A may hang under high I/O-driver interrupt stress. For systems operating in full APIC mode where the number of virtual interrupt lines (intA, intB, etc.) used by all PCI-Express\* adapters in a system exceeds the number of logical processors (threads), the system may hang.

### Root Cause

Please reference *Intel® E7520 MCH Specification Update Erratum #29: "Transposed interrupt messages across Hub Interface Erratum"* for a complete description of the MCH errata.

### Corrective Action / Resolution

PCI Express adapter add-in cards are not recommended for use with the Intel Server Board SE7520JR2. All PCI Express devices down on the server board are supported. A BIOS workaround is required for PIC mode operation. The BIOS workaround will be incorporated into Intel Server Board SE7520JR2 BIOS Production Release Version P03. Intel recommends that customers update all Intel® Server Board SE7520JR2 to this BIOS version. BIOS Version P03 will be available from iBL and <http://support.intel.com> on or before August 27, 2004.

Customers may choose to ship Intel Server Board SE7520JR2 product with BIOS Production Release Version P02, which does not include the PIC mode BIOS workaround, if the system configuration adheres to the following limitations: 1) Uni-processor systems must have processor hyperthreading Enabled in BIOS Setup, 2) The operating system must be configured to operate in symmetric mode rather than PIC mode, and 3) No PCI Express adapter add-in cards are installed. This restricted configuration will limit any possible exposure to this issue to pre operating system boot.

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An MCH component stepping change will be implemented on the Intel Server Board SE7520JR2 in early Q4 2004 to add support for broad PCI Express\* adapter add-in cards.

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

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