

intel® Technical Advisory

TA-656-1

5200 NE Elam Young Parkway
Hillsboro, OR 97124

June 20, 2003

2GB DIMM Support with the Intel® Server Board SE7501WV2 in the Intel Server Chassis SR1300 & SR2300

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Products Affected

Product	Product Codes
SE7501WV2	SE7501WV2SCSI, SE7501WV2ATA, SE7501WV2SKU02, SE7501WV2S02NA, BWV533SBB, SWV2USKU07, SWV1USKU07
SR1300	KCW KCWNA
SR2300	KSW KSW480 KSWNA

Description

When 2GB DIMM's are used with the Intel® Server Board SE7501WV2 and integrated into the Intel Server Chassis SR1300 & SR2300, the thermal environment needs to be considered. Intel's thermal testing results show that operating these server system configurations at an ambient inlet temperature of 35 degrees Celsius may potentially cause internal system components to exceed their maximum specified operating temperatures. Intel has verified that internal system components do not exceed their maximum specified operating temperatures when the Intel Server Chassis SR1300 server system configurations are operated at a maximum ambient inlet temperature of 30 degrees C. Intel has also verified that internal system components do not exceed their maximum specified operating temperatures when the Intel Server Chassis SR2300 server system configurations are operated using the "Optional Memory Cooling Enhancement Fan Accessory, Product Code: FSWMEMFAN, MM#: 852787" available from Intel.

Root Cause

Although Intel provides a leading chassis solution for cooling and power, we test to conservative Intel specifications to ensure robust operation of our server systems. Intel thermal specifications are designed for a very conservative case (Intel® Xeon™ processors at high Thermal Design Power (TDP), fully loaded server configuration, etc.)

Workaround

Intel® Server Chassis SR1300

Customers may use 2GB DIMM's with the Intel® Server Board SE7501WV2 integrated into the Intel Server Chassis SR1300, however, customers should be aware that the Intel Server Chassis SR1300 is specified at a maximum ambient inlet temperature of 30 degrees C when 2GB DIMM's are utilized in this chassis.

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Customers should also note that use of 2GB DIMM's requires a KCW chassis with top assembly (TA) number A88248-008 or greater. This KCW chassis version includes higher performance fans, which enables support of the 2GB DIMM's. Please reference PCN 103057-00 for further information on the fan change. Customers should also use the latest FRU/SDR package (version: 5.5.7) when running with 2GB DIMM's in an Intel Server Chassis SR1300. FRU/SDR 5.5.7 can be downloaded from Intel's secure web site, IBL, or from the following Intel customer support website:
<http://support.intel.com/support/motherboards/server/se7501wv2/>

FRU/SDR 5.5.7 ramps the system fan speeds quicker when running with 2GB DIMM's in an Intel Server Chassis SR1300. It also causes system fans to reach their maximum speed by the time the maximum ambient inlet temperature of 30 degrees C is met.

Intel® Server Chassis SR2300

Customers may use 2GB DIMM's with the Intel® Server Board SE7501WV2 integrated into the Intel Server Chassis SR2300, however, customers should be aware that the Intel Server Chassis SR2300 requires the "Optional Memory Cooling Enhancement Fan Accessory, Product Code: FSWMEMFAN, MM#: 852787" when 2GB DIMM's are utilized in this chassis. This Optional Memory Cooling Enhancement Fan Accessory will allow the Intel Server Chassis SR2300 to run at the maximum ambient inlet temperature of 35 degrees C when running with 2GB DIMM's.

Customers should also note that Intel has added a 5th fan header to the fan distribution board in the Intel Server Chassis SR2300. This additional fan header will allow the Intel Server Chassis SR2300 to support the "Optional Memory Cooling Enhancement Fan Accessory" when running with the four system fan (redundant cooling) configuration. The 5th fan header is available on KSW chassis with top assembly (TA) number A81074-013 or greater. Please reference PCN 103239-02 for further information on the fan distribution board change. Customers should also use the latest FRU/SDR package (version: 5.5.7) when running with 2GB DIMM's in an Intel Server Chassis SR2300. FRU/SDR 5.5.7 can be downloaded from Intel's secure web site, IBL, or from the following Intel customer support website:
<http://support.intel.com/support/motherboards/server/se7501wv2/>

FRU/SDR 5.5.7 contains support for the 5th fan header on the fan distribution board. FRU/SDR 5.5.7 will also allow the customer to configure the system using either the 4 fan header or 5 fan header fan distribution board when running with 2GB DIMM's and the Optional Memory Cooling Enhancement Fan Accessory in an Intel Server Chassis SR2300.

For a list of DIMM devices known to be compatible with the Intel Server Board SE7501WV2, please refer to the latest version of the *Intel® Server Board SE7501WV2 Memory List Test Report Summary*.

The Intel® Server Board SE7501WV2 Memory List Test Report Summary can be downloaded from Intel's secure web site, IBL, or from the following Intel customer support website:
<http://support.intel.com/support/motherboards/server/se7501wv2/>

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