

intel® Technical Advisory

TA 726-1

5200 NE Elam Young Parkway
Hillsboro, OR 97124

November 2, 2004

Intel® Server Platform SR1425BK1-E Operating Temperature Specification

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Products Affected

SR1425BK1

Description

The system-level operating temperature limits of the Intel Server Platform SR1425BK1-E configured with an Intel® Pentium® 4 Processor supporting an operational frequency of 3.6GHz or greater are +10°C to +32°C. These operating temperature limits are de-rated from Intel's standard system-level operating temperature limits of +10°C to +35°C. The de-rating applies specifically to the Intel Server Platform SR1425BK1-E when configured with an Intel Pentium® 4 processor supporting an operational frequency of 3.6 GHz or greater only. The board-level operating temperature limits of the Intel Server Board SE7221BK1-E (utilized in the Intel Server Platform SR1425BK1-E) are 0°C to +55°C. These are the standard board-level operating temperature limits for all Intel server board products. When the Intel Server Platform SR1425BK1-E is configured with an Intel Pentium® 4 Processor supporting an operational frequency equal to or greater than 3.6 GHz, and the server system is operated at an ambient temperature above +32°C, the server platform may suffer from degraded system performance and/or stability which may cause unpredictable system behavior.

Root Cause

Intel found it necessary to de-rate the Intel Server Platform SR1425BK1-E configured with an Intel® Pentium® 4 Processor supporting an operational frequency of 3.6GHz or greater to ensure compliance with Intel's processor thermal specification.

Corrective Action / Resolution

If customers require system-level operating temperatures in excess of +32°C, Intel recommends using a processor other than a model supporting operational frequencies equal to or greater than 3.6GHz. The table below lists alternative processors which, when configured with the Intel Server Platform SR1425BK1, do not violate Intel's standard system-level operating temperature limits of +10°C to +35°C.

sSpec#	CPU Speed	Bus Speed	Mfg-Tech	Stepping	Cache Size	Package Type	Notes
SL7PY	3.40 GHz	800 MHz	90 nm	E0	1 MB	775 pin PLGA	
SL7PZ	3.40 GHz	800 MHz	90 nm	E0	1 MB	775 pin PLGA	2
SL7L8	3.40 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	1,2

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sSpec#	CPU Speed	Bus Speed	Mfg-Tech	Stepping	Cache Size	Package Type	Notes
SL7KM	3.40 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	1
SL7J8	3.40 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	
SL7PW	3.20 GHz	800 MHz	90 nm	E0	1 MB	775 pin PLGA	
SL7PX	3.20 GHz	800 MHz	90 nm	E0	1 MB	775 pin PLGA	2
SL7LA	3.20 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	1,2
SL7KL	3.20 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	1
SL7J7	3.20 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	
SL7PU	3.00 GHz	800 MHz	90 nm	E0	1 MB	775 pin PLGA	
SL7KK	3.00 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	1
SL7J6	3.00 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	
SL7PR	2.80 GHz	800 MHz	90 nm	E0	1 MB	775 pin PLGA	
SL7KJ	2.80 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	1
SL7J5	2.80 GHz	800 MHz	90 nm	D0	1 MB	775 pin PLGA	

Notes:

1. These parts are Intel® boxed processor.
2. This part supports the Intel® Extended Memory 64 Technology (EM64T).

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

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