

# intel® Technical Advisory

TA-720-1

5200 NE Elam Young Parkway  
Hillsboro, OR 97124

September 20, 2004

## Inadvertently grounding capacitor C305 on backside of board may cause CMOS corruption on Intel® Server Board SE7320SP2 or Intel Server Board SE7525GP2

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### Products Affected

Product Code	MM#	Description
SE7320SP2	856637	Boxed SE7320SP2
BSPE7320	856627	Bulk Pack SE7320SP2
SE7525GP2	856659	Boxed SE7525GP2
BGPE7525	856625	Bulk Pack SE7525GP2
BSPE732015	866069	Bulk Pack SE7320SP2

### Description

Sightings of CMOS corruption have been observed at the Intel factory and have been traced back to a capacitor on the back side of the Intel® Server Board SE7320SP2 and SE7525GP2 which is part of the CLEAR CMOS circuit. If this capacitor is inadvertently grounded, either by touching a metal surface such as a chassis or by being touched by a human hand, it can lead to corruption of the CMOS settings.

### Root Cause

The capacitor at location C305 on the backside of the Intel Server board SE7320SP2 and SE7525GP2 (See Figure 1) has been linked to sightings of CMOS corruption at the Intel factory. This capacitor is a reference capacitor on the RTC\_RST circuit, sitting between this signal and ground. The RTC\_RST signal is an active low signal and is active even when the board is not plugged in since it's part of the CMOS circuit powered by the battery. If this capacitor is inadvertently grounded either by touching a metallic surface such as a chassis or is touched by a human hand, it can pull the signal low enough to cause corruption of the CMOS value.

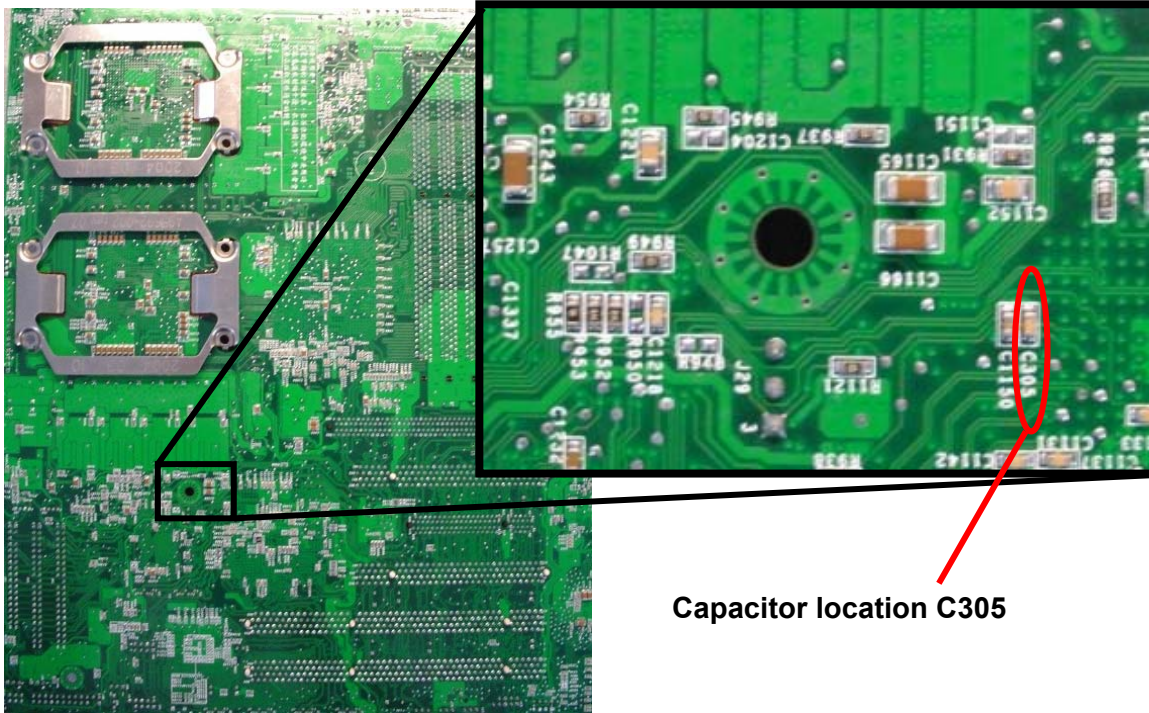
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Figure 1 Location of C305

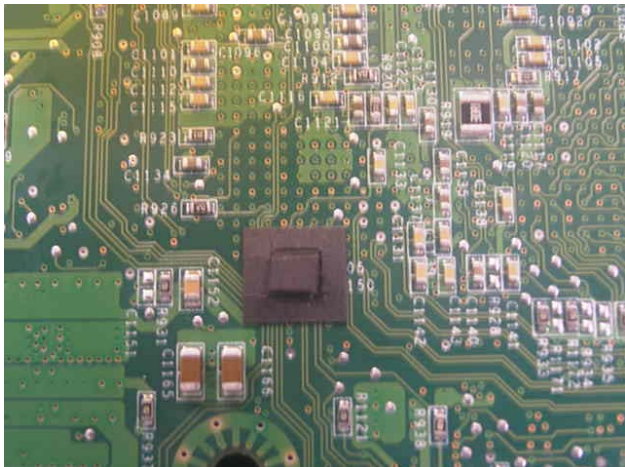


Capacitor location C305

## Corrective Action / Resolution

Intel is in the process of adding a step to the manufacturing line in which a Mylar\* cover is placed over the top of the capacitor, preventing it from coming in contact with any surfaces which may inadvertently cause this behavior. Boards with this Mylar cover will be available after 8<sup>th</sup> of October, 2004 (WW40). Intel will not be making any changes to the TA or PBA numbers on the board for this change.

Figure 2 Example of Mylar cover



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As soon as possible, Intel will schedule a board change and will relocate this capacitor to the top side of the board where it will be less likely to come in contact with any surface which may accidentally cause this behavior.

## **Workarounds**

If a customer has a board on which the CMOS has been corrupted, there are several options for recovering the default CMOS settings depending on how serious the corruption is. Please try any of the following suggestions.

- Set the CMOS CLR jumper at location J17 (below PCI slot 1) and boot the board to reset CMOS settings.
- Set the BIOS SEL jumper at location J29 (located above SATA A1 and below CPU\_2 VRD heatsink) to boot to 2nd BIOS bank
- Set RCVR BOOT jumper at J17 (located below PCI slot 1) and boot to BIOS recovery disk.
- Remove battery for 60 seconds to reset CMOS settings.

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

Enterprise Platforms & Services Division  
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