



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

Intel Technical Advisory

TA-1054-01

5200 NE Elam Young Parkway
Hillsboro, OR 97124

April 4, 2014

Incorrectly wired SATA power cables on the Intel® Server System P4000 Family and the Intel® Server Chassis P4000 Family

Products Affected

| Product Name | Product Code | MM# |
|--|--------------|--------|
| Intel® Server Chassis P4208XXMHGC | P4208XXMHGC | 916310 |
| Intel® Server Chassis P4216XXMHGC | P4216XXMHGC | 916309 |
| Intel® Server Chassis P4308XXMHGC | P4308XXMHGC | 916320 |
| Intel® Server Chassis P4308XXMHGN | P4308XXMHGN | 916328 |
| Intel® Server System P4308SC2MHGC | P4308SC2MHGC | 919789 |
| Intel® Server System P4308IP4LHJC | P4308IP4LHJC | 916064 |
| Intel® Server System P4304CR2LFKN | P4304CR2LFKN | 916046 |
| Intel® Server System P4308CP4MHGC | P4308CP4MHGC | 918994 |
| High Current P4000 Chassis Family Power Distribution Board FUPPDBHC | FUPPDBHC | 916813 |

Description

Intel has found a manufacturing excursion that will prevent the system from powering on if one or both of the SATA 1x5 pin Peripheral Power Connectors (labeled P5 and P6) from the Power Distribution Board (PDB) are connected to the peripheral devices such as hard disks and optical disk drives.

Intel has performed technical analysis and testing; no significant damage was found to the system including the PDB and the peripheral devices.

It has been confirmed that the issue happens only with a certain date code "P/N DD0S6CPB700 12/15/2013" of the power cable that connects to the 2x12 pin connector (labeled "Main PWR1") on the PDB. Customers can identify the date code by locating the label shown in Figure 1.

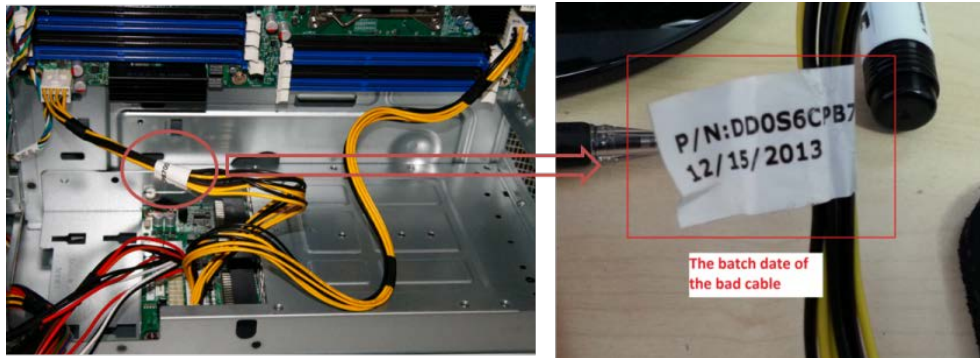


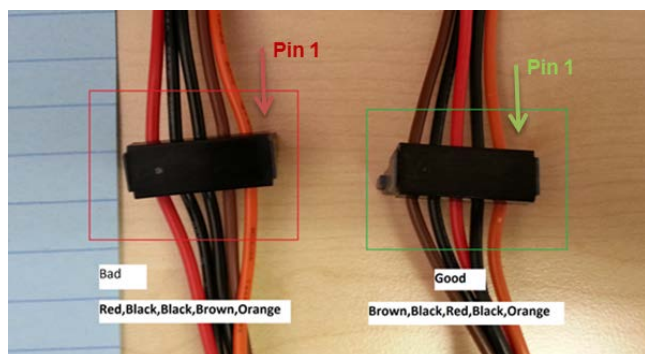
Figure 1. Location of the date code "P/N DD0S6CPB700 12/15/2013"



Figure 2. Location of the 2x12 pin connector (labeled "Main PWR1") on the PDB

Root Cause

Intel has determined that this failure is due to the incorrectly wired pin connection on the two SATA 1x5 pin Peripheral Power Connectors (labeled P5 and P6). The correct pin definition of the connector should be Orange, Black, Red, Black, and Brown from Pin 1 while the problematic connectors are wired in a different order as Orange, Brown, Black, Black, and Red from Pin 1.



Pin Definition of SATA 1x5 Peripheral Power Connectors (P5, P6)

| Pin | Signal | 18 AWG Color |
|-----|---------|--------------|
| 1 | +3.3VDC | Orange |
| 2 | COM | Black |
| 3 | +5VDC | Red |
| 4 | COM | Black |
| 5 | +12V2 | Brown |

Figure 3. Pin connection of the two SATA 1x5 pin Peripheral Power Connectors (labeled P5 and P6)

Corrective Action / Resolution

Intel has screened the current inventory to ensure systems and chassis are shipped with the correct SATA power connectors.

Intel will provide the correct power cable to customers as a replacement upon request. Please contact Intel using your normal warranty process to obtain the cable. Please indicate you are calling regarding TA-1054-01 for a replacement cable with the part number DD0S6CPB700 and have the following information when you call: serial number(s) for the system(s) or chassis.

The following is a brief instruction of how to replace the power cable that connects to the 2x12 pin connector (labeled "Main PWR1") on the PDB:

1. Remove the side cover and the air duct from the system or chassis by referring to the Service Guide of your affected product. The Service Guide is available on http://www.intel.com/p/en_US/support.
2. Remove wire tie and put it in a safe place for reuse.

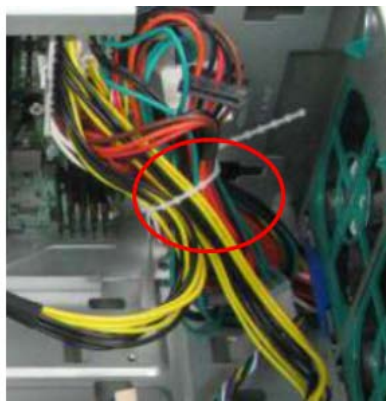


Figure 4. Location of the wire tie

3. Note down the original locations of the P2, P3, P5, P6, P7, P8, P9, P10, P11 power connectors if they are connected to the backplane board, motherboard, or peripheral devices, and then remove the connectors. See the following figures for some location examples of these power connectors.



Figure 5. Location examples of the power connectors

4. Remove the 2x12 pin power cable from the "Main PWR1" connector of the PDB and replace it with the new cable that Intel ships to you.



Figure 6. Location of the "Main PWR1" connector

5. Re-connect the P2, P3, P5, P6, P7, P8, P9, P10, P11 power connectors to the backplane board, motherboard, or peripheral devices based on the notes in step 3.
6. Fasten the wire tie.

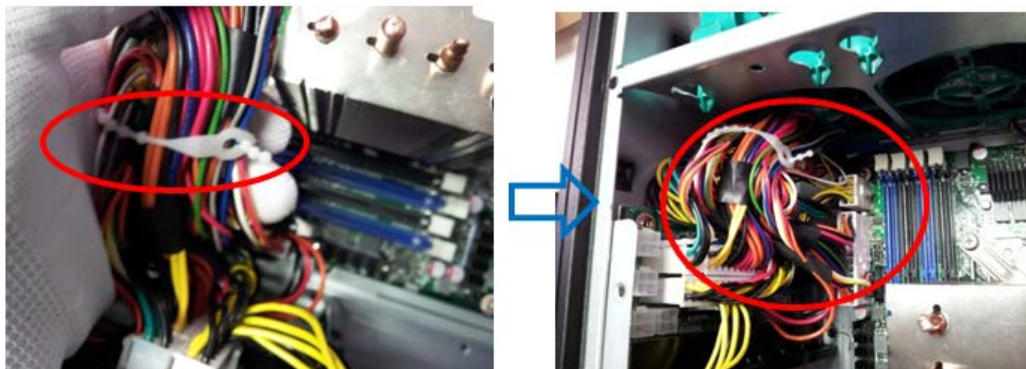


Figure 7. Location of the wire tie

7. Re-install the air duct and the side cover.

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

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