



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

# Intel Technical Advisory

TA-0921-2

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## AXXRSBBU4 Thermistor Mechanical Damage Results in Incorrect Battery Temperature Being Reported.

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### Products Affected

AXXRSBBU4, MM# 891157

### Description

Intel has found that some AXXRSBBU4 may experience an issue with a damaged thermistor. The thermistor damage results in extreme battery temperature values being reported which results in triggering the BBU overheating protection mechanism and prevents the battery from charging. The typical symptom of this issue is a temperature value ~65512 degrees C; however, a value below 16 degrees C can also be reported.

Temperature values reported by the thermistor can be viewed in RAID BIOS Console utility (see Figure 1) or in the RAID Web Console 2 utility (see Figure 2).

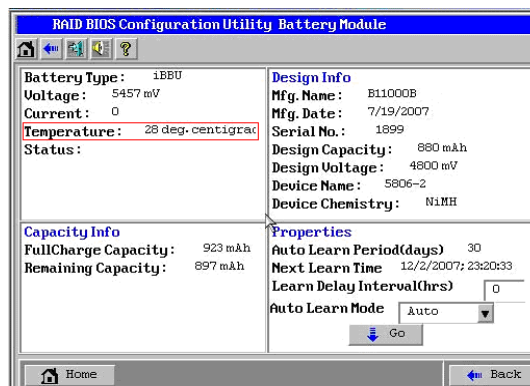
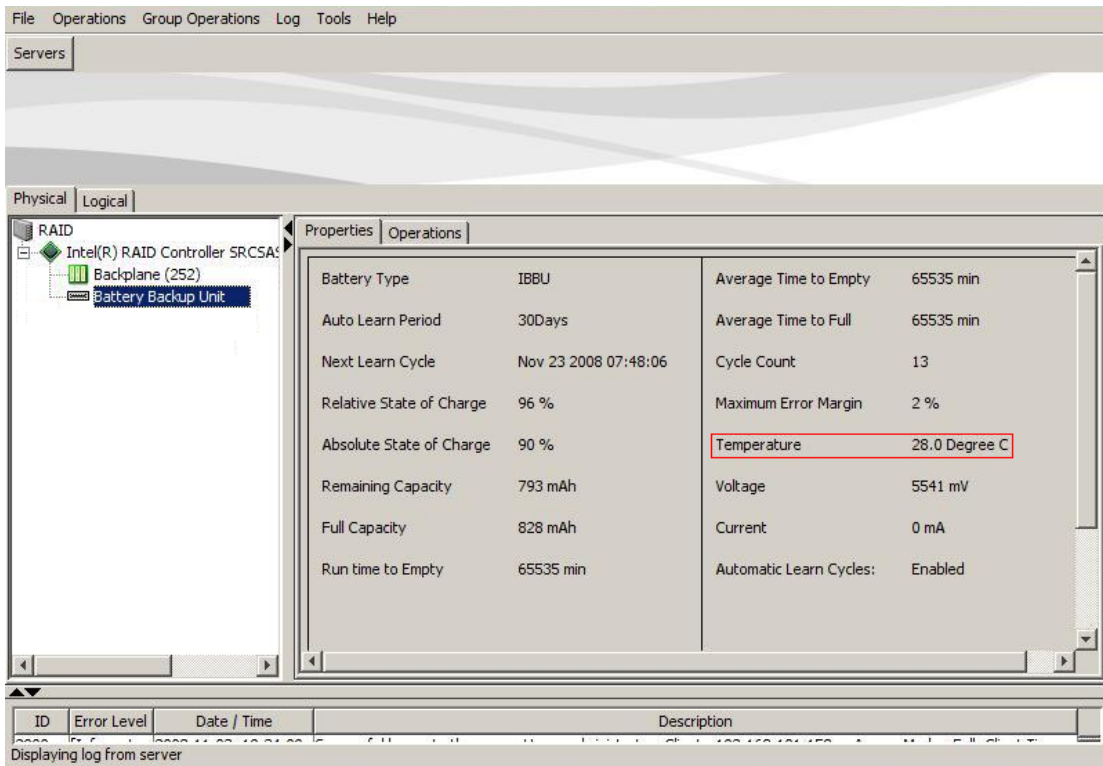


Figure 1



**Figure 2**

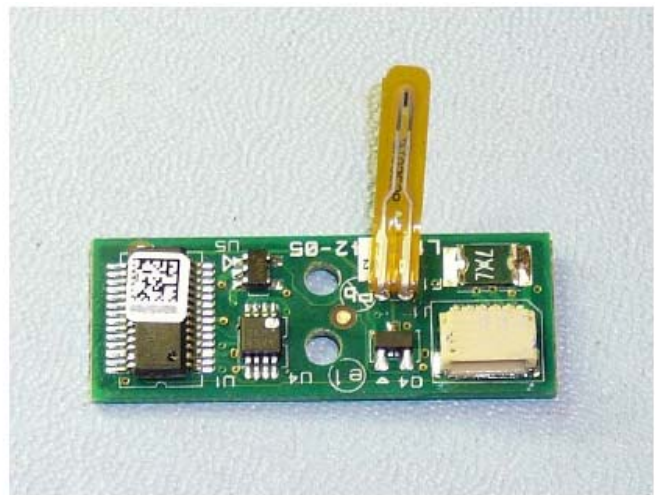
Batteries exhibiting an abnormal temperature will fail to charge which will result in a “bad battery” error being reported during POST and in the raid controller log (viewable in Bios Console and RAID Web Console 2). When the option for write back with a “bad BBU” is disabled in virtual drive properties, a low charge state of the battery will result in write back cache mode being temporarily set to write through mode. Temporary cache setting changes resulting from this issue will also be reported as a log entry.

**Root Cause**

Cause of the thermistor damage has been determined to result from improper handling at the last stage of the test process. Pictures below show the disassembled thermistor and battery cell pack in figure 3, and the gas gauge circuit board with thermistor attached in Figure 4.

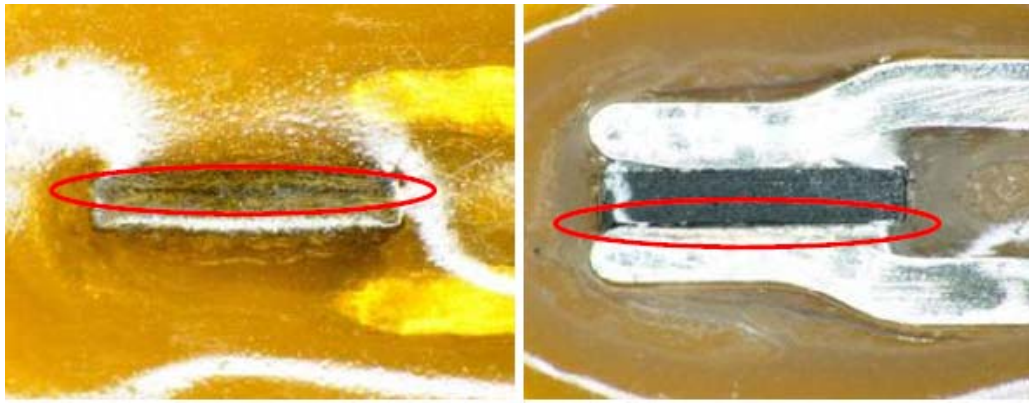


**Figure 3 : Gas Gauge and Battery assembly**



**Figure 4 : Gas Gauge board**

Figure 5 shows damaged detected in the thermistor elements.



**Figure 5: Damaged Thermistor Elements**

Additional analysis of these fractures proved that separation of the element along the fracture line results in incorrect values being reported to the gas gauge circuitry.

#### **Corrective Action / Resolution**

Product with MM#891157 is no longer in production and has been replaced by product with MM#899346 which is based on LiON battery technology. An additional functional test has been implemented for this updated product that includes a test designed to catch damage to the thermistor, and a plastic shroud has been added to provide additional protection to the thermistor and battery cell pack.

Customers may review the AXRSBBU4 temperature values in RAID Bios Console or RAID Web Console 2. Batteries that display an abnormal temperature as described above may be returned for warranty replacement. Battery returns should be managed through the standard product RMA process. Please indicate that you are calling regarding TA# 0921-2, and have the following information when you call; the part number requested, and the serial number(s) for the system(s) or board(s) needing the replacement part.

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

Enterprise Platforms & Services Division  
Intel Corporation

Distributors wishing to return their product inventory may do so under a technical RMA. To initiate a technical RMA, distributors may contact the following toll free numbers, and reference TA-921-2.

Americas: 1-800-INTEL4U or 1-800-468-3548  
EMEA: 00 44 1793 403063 (not toll free)  
APAC: 604-859-3344  
IJKK: 81-29-847-0993 or 81-29-847-5417"