



PFR-042 Title: Shorted EFI CLK

Assembly : FM2	SubAssembly : DCB SN 1
Component : U1	Date:4/28/2005
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Failure Occurred During (Check one ✓)

☐ Functional test ☐ Qualification test ☐ S/C Integration ☐ Launch operations ☒ Other (Flight Assy)

Environment when failure occurred:

☒ Ambient ☐ Vibration ☐ Shock ☐ Acoustic
☐ Thermal ☐ Vacuum ☐ Thermal-Vacuum ☐ EMI/EMC

Problem Description

(In this section it is important to document the specific symptoms which exhibited the problem. In the event we see it happen again, we would like to know as much as possible.)

While testing at the board level, pin A2 (EFI_CLK) on the backplane was shorted to pin A1 (GND) through an oscilloscope ground clip. The signal on C2 disappeared from the scope. When the grounding clip was seen to be in contact with A2, it was removed and the signal on C2 reappeared.

Analyses Performed to Determine Cause

(How do we know how the failure happened? Was it a bad part, bad handling, what?)

Corrective Action/ Resolution

(How do we fix the unit? And how do we make sure it doesn't happen again?)

The signal on A2 is driven by U1 through a 31 ohm resistor. This would amount to 161 mA which is probably overstressing the driver. Even though the driver (AC14) appears to be functioning perfectly, I believe it should be replaced.

Part Replaced: 5/9/05

P/N 54AC14FMQB

D/C 0310

Acceptance:

MAM: Ron Jackson _____ ; MSE: Ellen Taylor _____

PM: Peter Harvey _____ ; Cognizant Engineer _____

Date of Closure _____