

STEREO IMPACT

PROBLEM REPORT

PR-1024

FM1 SEP LVPS

08 October 2004

PR Numbers: 1xxx=UCB, 2xxx=Caltech/JPL, 3xxx=UMd, 4xxx=GSFC/SEP, 5xxx=GSFC/Mag,
6xxx=CESR, 7xxx=Keil, 8xxx=ESTEC, 9xxx=MPAe

Assembly : IMPACT SEP	SubAssembly : LVPS
Component/Part Number:	Serial Number: FM1
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Failure Occurred During (Check one)

Functional test Qualification test S/C Integration Launch operations

Environment when failure occurred:

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

Problem Description

On arrival at Caltech it was found that the SIT and HET +5.3VD and +3.4VD supplies were open. These supplies are provided on a connector attached to the supply via one of two flex strips. The same voltages provided on a second connector attached via the second flex strip were OK. The -6VA supply on the same flex strip connector also seemed to be intermittently open. This supply had been tested and inspected before delivery, but may have been damaged in transit.

Analyses Performed to Determine Cause

Inspection showed that the flex strip was torn. This tear runs through the +5.3VD and +3.4VD lines. The -6VA line is on the opposite end of the same flex strip and showed no visible damage, but was confirmed to be open. The flex is very hard to start a tear but somewhat easier to continue a tear once started.

Corrective Action/ Resolution

Rework Repair Use As Is Scrap

The SEP LVPS FM1 top board FM1 SN#4-1 was replaced by FM3 SN#5-2. The new flight board was shipped with a temporary stiffener added to the flexstrip. During test we now verify there is adequate support to the flex strip since it connects to a heavy test harness.

Date Action Taken: 2004-11-22

Retest Results: New flight board successful tested at board and box level.

Corrective Action Required/Performed on other Units: FM2 SEP -Inspect flex strips for damage and verify signals on all pins. There were no issues found on the FM2 SEP.

Closure Approvals

Subsystem Lead: _____ Date: _____
IMPACT Project Manager: _____ Date: _____
IMPACT QA: _____ Date: _____
NASA IMPACT Instrument Manager: _____ Date: _____

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