

PFR-059 Title: Cable Pull Test Failure

Assembly : EFI Cable Assy THM-SPB-	SubAssembly :
MEC-820-024	
Component : Cable	
Originator: Daniel Schickele	Organization: UCB/SSL THEMIS EFI
Phone : (510)-643-9247	Email : dschickele@ssl.berkeley.edu
Failure Occurred During (Check one $$	

 \Box Functional test \blacksquare Qualification test \Box S/C Integration \Box Launch operations \Box Other (Flight Assy) **Environment when failure occurred**:

□Ambient	□ Vibration	■ Shock		
□ 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.)



Analyses Performed to Determine Cause

(How do we know how the failure happened? Was it a bad part, bad handling, what?) It appears that the outer braid slipped so that it was taking the load rather than the inner Kevlar braid. This loading caused the outer braid to fail which then continued to slide until enough of the outer braid accumulated at the lower portion of the jig to prevent further slippage. The jig then stopped suddenly, and the resulting shock broke the Kevlar braid. The most probable cause for the slippage was either insufficient clamping force due to either improper tightening of the clamp screws or warpage of a clamp jaw.



PFR-059 Title: Cable Pull Test Failure

Corrective Action/ Resolution

(How do we fix the unit? And how do we make sure it doesn't happen again?) This cable is one of four FM6 spare cables of which all the others passed the Pull Test. Consequently, the decision was made that it was not necessary to replace this cable and there is no corrective action required.

Acceptance: MAM: Ron Jackson_____; MSE: Ellen Taylor_____

PM: Peter Harvey_____; Cognizant Engineer_____

Date of Closure_____