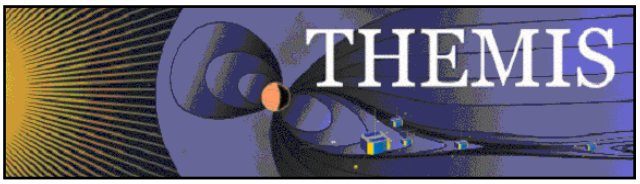

Problem/Failure Report
THM_PFR_199

PFR-199 Title: Receiver Signal Strength decreased significantly during F5 CPT RF Test

Assembly : EGSE	**SubAssembly :** Rack #4 (RF Rack#2)	
Component :	**Units Affected:**	**Units fixed:**
Originator: Ellen Taylor	- - - - - -	- - - - - -
Organization: Swales/UCB	**Date: 6/23/06**	
Phone: (510) 643-4054	**Email :** ertaylor@ssl.berkeley.edu	

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

During the final CPT of F5 at UCB prior to shipment of the Probe to JPL, the signal strength of the receiver decreased significantly.

Analyses Performed to Determine Cause

Reed-Solomon errors were noticed half way through the RF section of the F5 CPT. After some investigation, it was found that the errors could be attributed to a poor receiver signal strength. Probe 5 had recently (the prior day) undergone end-to-end RF testing with the MOC, so a problem with the flight receiver was unlikely and the EGSE Rack #4 was thought to be the problem.

Corrective Action/ Resolution

Suspect RF equipment in the EGSE was removed, connections were tested, cleaned-up, and the units were re-installed.

Update 8/14/06: Re-test and subsequent extensive RF testing with the rack at JPL has shown the rack is now operating as expected.

Acceptance:
MAM: Ron Jackson_____; MSE: Ellen Taylor_____

PM: Peter Harvey_____; Cognizant Engineer_____

Date of Closure_____