



**PFR-108 Title: FM2 ETC EEPROM Table not loading correctly**

<b>Assembly :</b> IDPU			<b>SubAssembly :</b> DCB/ETC																	
<b>Component :</b> EEPROM			<b>Units Affected:</b> <table><tr><td>-</td><td>x</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>			-	x	-	-	-	-	<b>Units fixed:</b> <table><tr><td>-</td><td>x</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>			-	x	-	-	-	-
-	x	-				-	-	-												
-	x	-	-	-	-															
<b>Originator:</b> Ellen Taylor																				
<b>Organization:</b> UCB			<b>Date:</b> 10/12/05																	
<b>Phone:</b> (510) 643-4054			<b>Email :</b> 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**

*(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.)*

During the Limited Performance Tests of the FM2 Suite during Thermal Vacuum, an error code E1 was consistently logged after the system was powered on and IDPU\_INIT was run.

**Analyses Performed to Determine Cause**

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

Error code E1 indicates that no valid EEPROM is available to execute. Further investigation found that this error was logged immediately after the 6600 command to start the ETC table load was sent during the IDPU\_INIT script. Incorrect readback of IETC\_TABLE = 0 was also observed.

**Corrective Action/ Resolution**

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

EEPROM\_LOAD\_EEPROM\_ETC script was run to load the most recent version of the ETC Table (Revision 4) into the ETC EEPROM. IDPU\_INIT was then successfully executed with no error code logged. Correct readback of IETC\_TABLE = 4 was observed. The cause of this failure is unknown. The PFR can be closed as the failure was remedied and no further action is being taken at this time. However, re-occurrence of this specific failure will cause this PFR to be re-opened. The IDPU\_INIT script is run every time the IDPU is powered on so a re-occurrence will be immediately noticed.

Acceptance:

MAM: Ron Jackson\_\_\_\_\_ ; MSE: Ellen Taylor\_\_\_\_\_

PM: Peter Harvey\_\_\_\_\_ ; Cognizant Engineer\_\_\_\_\_

Date of Closure\_\_\_\_\_