



PFR-002 Title: SCM FM3 Cal level

Assembly : SCM	SubAssembly : Pre-amplifier FM3
Component :	
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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

(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.)

The SCM pre-amplifier box generates a triangular wave used for in flight calibration once per orbit. When this function is activated, the output signal of the pre-amplifier should be around 300mV p-p.
In FM3 this level is 1.2 V p-p

Analyses Performed to Determine Cause

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

The reason is an error in a resistor value. As the output level of the Calibration signal can be chosen to be any value less than 5V, it has been decided not to refurbish the pre-amplifier and keep it as is. It will be used as a spare model.

Corrective Action/ Resolution

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

No corrective action.

Acceptance:

MAM: Ron Jackson _____ ; MSE: Ellen Taylor _____

PM: Peter Harvey _____ ; Cognizant Engineer _____

Date of Closure _____