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INLAND TEST SYSTEM FOR SATELLITE

Abstract

Satellite before launch need there PCB to undergo various tests such as power line loss, communication loss etc. There are various failures that can occur when a satellite is in space, there can be electrical failure due to short circuit, and there can be a communication bus failure, antenna deployment failure and many other to avoid these failure we test the satellite. These tests are conducted in various locations and hence by using various setup. We have planned a tester jig setup that will conduct all the test at one place and with one setup. We are designing a system that will test the integrated reliability, data handling and also the full functionality of the system as per the space environment guidelines. Data frequency monitoring and even the signal integrity will be tested in the system. The tester system will have a plug in module setup for the subsystem PCB. System will have its own micro controller ,which will communicate with the computer using mod-bus protocol and will send in the various result parameters that will be build for testing of the satellite in lab-view software in the computer. These test will reduce the efforts and will also help in increasing the reliability of the satellite after launch. We have also build a failure analysis mechanism and will test all the failure scenario that can occur.