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| Test Writer | | Cassandra Noice | | | | | |
| Test Case Name | | Power Systems Acceptance Testing | | | | Test ID# | PS-AT-2 |
| Description | | Verify all submodules of the CU Robosub AUV can draw power from the power conversion board and merge circuit, given a 14.8V, 100A Lithium Ion Polymer battery under normal operations | | | | Type | Blackbox |
| Test Information | | | | | | | |
| Name of Tester | |  | | | | Date |  |
| Hardware Version | | PS 1.0 | | | | Time |  |
| Setup | | Merge Circuit, and Power Conversion Board are slotted into the backplane. Attach one 14.8+/-2.8V, 100A, LIPo battery to any of the input terminals of the merge circuit. | | | | | |
| Step | Action | Expected Results | Pass | Fail | N/A | Comments | |
| 1 | Verify operational status indicator LED for the Microcontroller on the merge board and power conversion board are turned on. | LED is turned on |  |  |  |  | |
| 2 | Verify voltage outputs on the backplane are within nominal values. | 5V Rail Measures 5V, +/- 0.3V  12V Rail Measures 12V, +/- 0.3V  19V Rail Measures 19V, +/- 03V  48V Rail Measures 48V, +/- 2.8V |  |  |  |  | |
| \*\*3 | Plug in DVL, POE Injector, CPU, and Actuators, boot main computer  Verify voltage outputs on backplane are within nominal values. | 5V Rail Measures 5V, +/- 0.3V  12V Rail Measures 12V, +/- 0.3V  19V Rail Measures 19V, +/- 03V  48V Rail Measures 48V, +/- 2.8V |  |  |  |  | |
| Overall Results | | |  |  |  |  | |