## Interface Control Document

**RockSat-X Power**

**Revision:** 09-25-13

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<th>Interface Type</th>
<th>Description</th>
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| Mechanical              | Customers will be provided power and ground for flight operations through the RockSat-X Power Connector | Connector Type: 15 Pin Cannon (D-Sub)  
Gender: Male (pins) |
| Constraints             | Wallops and COSGC maintain the right to remove payloads not meeting these specifications | Current: Wallops and Timed Event lines are limited by WFF. Please see the diagram tab for clarification on limits.  
Flight Power Off: All decks will lose power at T+6 minutes (T+530 seconds)  
Capacity: Each full payload space has been allotted their own 1 Ah battery |
| Electrical, Ground (GND)| Wallops will supply a current return ground connection. | Pins: 5 - 8 and 12 - 15 on RS-X Power Connector  
Max Current: 1 Amp max per line |
| Electrical, Ground Support Equipment (GSE) | Wallops shall supply power lines capable of activation prior to launch | Wallops will activate the GSE lines during environmental and other testing on the rail prior to launch, which should be taken into consideration in electrical design.  
Pins: 1 and 9 on RS-X Power Connector  
Voltage/Polarity: 28 +/- 4 V nominal per line  
Max Current: See diagram on "Diagram" tab  
Special Considerations for GSE lines: All go active at T-3 and remain active for duration of flight. Also, see additional comment above.  
GSE 1 Activation Time Prior to Launch: From T-10 to T-3 minutes (Customer Defined)  
GSE 2 Activation Time Prior to Launch: From T-10 to T-3 minutes (Customer Defined) |
| Electrical, Timed, Non-redundant (TE) | Wallops shall supply three non-redundant lines capable of activation post launch | Pins: 4, 10, and 11 on RS-X Power Connector  
Voltage/Polarity: 28 +/- 4 V nominal per line  
Max Current: See diagram on "Diagram" tab  
TE-1 Activation Time Post Launch/Dwell Time: From T+0.1 to T+6 minutes (Customer Defined) with Dwell Time from 1 second to flight  
TE-2 Activation Time Post Launch/Dwell Time: From T+0.1 to T+6 minutes (Customer Defined) with Dwell Time from 1 second to flight  
TE-3 Activation Time Post Launch/Dwell Time: From T+0.1 to T+6 minutes (Customer Defined) with Dwell Time from 1 second to flight |
| Electrical, Timed, Redundant (TE-R) | Wallops shall supply a single redundant line capable of activation post launch | Pins: 2 and 3 on RS-X Power Connector (Customers connect together)  
Voltage/Polarity: 28 +/- 4 V nominal per line  
Max Current: See diagram on "Diagram" tab  
TE-RA/RB Activation Time Prior to Launch/Dwell Time: From T+0.1 to T+6 minutes (Customer Defined) with Dwell Time from 1 second to flight |