### Interface Control Document

#### RockSat-XN Power

**Revision:** 07-28-2014

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<table>
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<tr>
<th>Interface Type</th>
<th>Description</th>
<th>Specification</th>
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| Mechanical    | Customers will be provided power and ground for flight operations through the RockSat-XN 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: GSE 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+330 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 +/- 6 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: T - 10min
- GSE 2 Activation Time Prior to Launch: T - 9.5min

#### 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 +/- 6 V nominal per line
- Max Current: See diagram on “Diagram” tab
- TE-1 Activation Time Post Launch/Dwell time: T + 30second (TBD), (sequence timer start)
- TE-2 Activation Time Post Launch/Dwell time: T + 55second (TBD), (MED HV ON)
- 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 +/- 6 V nominal per line
- Max Current: See diagram on “Diagram” tab
- TE-RA/RR Activation Time Prior to Launch/Dwell time: T + 60second (TBD), (HEP HV ON)

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*Customer Signature*  
*Date*