Rascal Interface Control Document

Saint Louis University

Rascal



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# Interface Overview

This Interface Control Document (ICD) serves to define all relevant interfaces between the Space Systems Research Lab’s (SSRL) Rascal payload (consisting of a 3U secondary spacecraft and 1.5U propulsion/image processing unit) and Boeing’s Colony-II bus. These interfaces consist of two major types:

1. **Mechanical -** structural interfaces that involve the physical connections between SSRL-Boeing components.
2. **Electrical –** digital/analog interfaces that involve data communication and power transmission to and from SSRL-Boeing components.

Beyond these two designations, each interface can be broken down into two general categories: those that interface the secondary spacecraft with the primary spacecraft, and those that interface the image processing/propulsion unit with the rest of the primary spacecraft. Each of interface within these categories will be defined in the sections that follow.