Mission Requirements

Provide answers to the following on EPS

The Electrical Power Subsystem should include a schematic showing power connection that includes all power sources, resistor arrangements and all major components. The CANSAT should have an external switch. All types of connections and mounting need to be shown clearly.

Show the Power Schematic.

4.3 POWER REQUIREMENTS

i. The CANSAT shall have an external power switch with an indicator light or sound for being turned on or off, in order to avoid the disassembling of CANSATs on the launch pad.

Explain the scheme, How the cells are assembled and are replaced if required (with secure connections which will get disturbed during launch)

ii. The CANSAT shall have a battery capacity to support up to 2 hours of wait in on the launch pad with additional time for flight operations.

Show the calculations

Describe the power tradeoff and selection. The kind of connection done (parallel or series) needs to be explained in detail.

The Power budget should include:

- Energy Balance
- Power consumption of each component/subsystem
- the total power consumed

iii. The battery source may be alkaline, Ni-Cad, Ni-MH or Lithium ion. 18650 type Lithium ion cells can be used.

Justify Selection of particular cell/Battery

Whether the Cell/Battery chosen (Voltage range and capacity) meets all the Voltage/Current requirements of different subsystems/chips used

iv. An easily accessible battery compartment must be included allowing batteries to be installed or removed in less than a minute and not require total disassembly of the CANSAT.

Confirm the same

v. Spring contacts shall not be used for making electrical connections to batteries. Care must be taken as the shock forces can cause momentary disconnects of power.

Confirm compliance

If there is a momentary Power reset during launch (OFF/ON condition) what happens.