Group M
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1. The DPS shall not suffer damage internal temps down to -40°C.

2. The DPS shall maintain voltage output specifications external temperature range of -90 to 30°C.

3. The DPS shall have a power efficiency of >60% with 20mA current load on either of the two outputs.

4. The DPS shall have a 5V output 4.85v to 5.15v up to 20mA

5. The DPS shall have a 12V output 11.2 to 12.8v up to 20mA.

6. The DPS shall operate with a single voltage input from 0 to 30V. The input voltage must not be within +/-10% of either of the output voltages (5V and 12V). Note: The choice of battery technology and voltage is still to be finalised. The DPS development team should assess the most suitable input voltage and feedback to the systems team. Lower voltages are preferred on cost and efficiency grounds.

7. The DPS shall maintain voltage output specifications with an input voltage +/-20% from nominal.

8. The DPS shall have flying leads for the connection to the battery.

9. The DPS shall have test pins for the output voltages.

10. The DPS shall have a mass of no more than 25g including PCB and components (without leads).

11. The DPS shall generate maximum 20mA output current under a short circuit condition on either output.

12. The DPS shall be shock resistant and wind resistant up to 300km/h(186mph)

13. The DPS shall use surface mount components only. Resistors and capacitors must be package type 0805. Surface mount inductors are not available.

14. The DPS shall use a double sided PCB with components only on one (top) side, and have dimensions of 5x5cm.

15. The PCB vias must be 0.8mm and copper pad 1.6mm, holes for attachment of wires or test pins must be 1.0mm with copper pad of 1.8mm.

16. The PCB shall have a minimum track width of 0.4mm with a separation of 0.4mm between tracks, with a copper pour spacing of 1mm. No tracks within 2mm of edge.