Specification of PCB for Local Battery Monitoring Unit

D3.5

incobat

Confidentiality	PR	Deliverable Type	R
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1 Publishable Executive Summary

The INCOBAT project addresses the development of a new Battery Management System Module for integration into Battery Cell for Fully Electric Vehicles. The targets are a radical cost reduction by massive increase in the level of hardware integration. INCOBAT will optimize the distribution of the functionalities and intelligence between the central control unit and the satellite BMS units. INCOBAT will deliver optimum satellite BMS units based on a minimum number of dedicated sensors and electronics components and a cost effective integration scheme, which is able to meet the requirements.

The document will represent the specification and requirements appropriate to the satellite BMS units for passive balancing.

The passive balancing satellite boards shall be able to provide:
- Scalable battery management solution for battery packs up to 1000V
- monitoring of voltages, temperatures
- over /under voltage detection
- cell balancing: passive
- Robust design against RF disturbances
- Robust Communication
- Galvanic isolation on all major interfaces
- Fault detection and diagnostic
- Safety and protection
- Low cost

Figure 1: Battery Management System Satellite Board 3d plot **(Size: 60mm x 75mm)**

The highlights for the INCOBAT satellite boards are the very robust communication interface without transformers, simultaneously cell voltage measurement of all battery cells with an accuracy of +-1.5mV.