



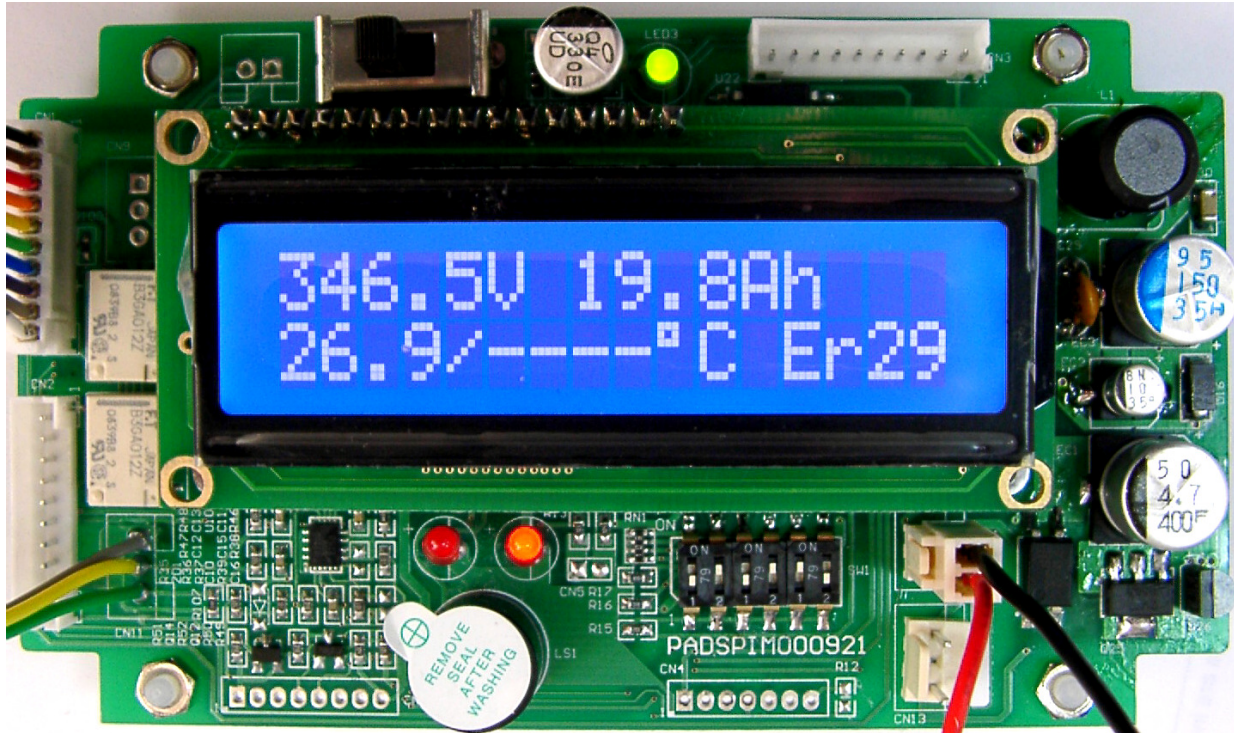
## **LiFeBATT Approval Sheet**

### **1. General Descriptions and Features (Functions and Applications)**

The IM module provides a hierarchical battery-management system which can effectively reduce the amount of data required for managing batteries to speed up the decision process and to cut down the time required for the power system controller to obtain the status information of the battery set so as to meet real-time monitoring requirements of the whole power system.

A hierarchical battery-management system mainly comprises a monitoring & equalizing module, an intermediary module and a communication & decision module; the monitoring & equalizing module electrically couples with the battery, the intermediary module electrically couples with the monitoring & equalizing module and the communication & decision module, besides, the communication & decision module electrically couples with a power system or an electronic/electrical apparatus.

The battery monitoring system tends to be simple. As the development trends going towards electrical vehicles and LiFePO<sub>4</sub> batteries, now the battery monitoring system has to monitor much more than the battery capacity. The battery weight is an important factor for energy efficiency of the electric vehicle; therefore it is necessary to reduce the battery weight to increase the loading capacity and to improve battery sustainability.

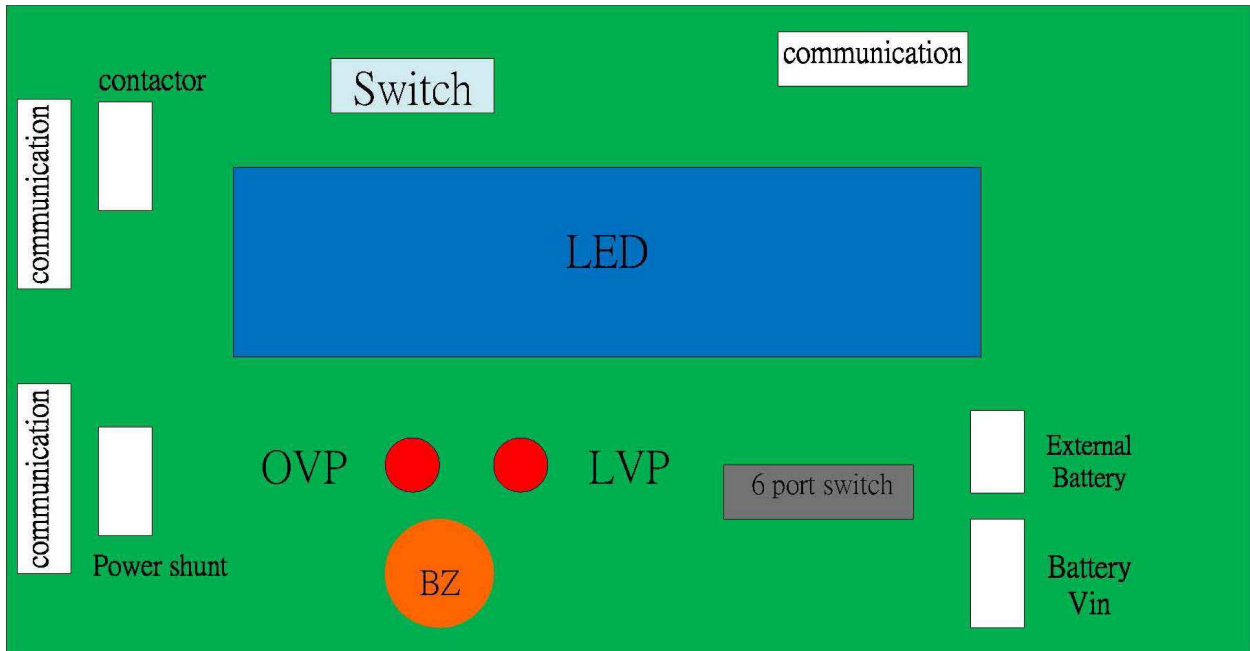


Size: (L\*W\*H) : 160mm \* 80mm \* 45mm

## LiFeBATT Approval Sheet

Pin Assignment:

1. The basic IM concept is to link sub-packs. That is why the basic functions of IM are the following.
2. To poll the VMS below him, and to conclude those cells' data, if necessary (UART6 interface).
3. To provide the up/down linking interface, which provides the linking capability between IM, even to central control system. (UART0 interface).
4. To combine all of TTL signals from VMS below him and next IM, and to upload to up-IM/central control system.
5. To provide the independent, or second protection device. If there is any defined VMS not responding for 5 times, or IM senses any cell over the protected limit, IM will deliver the TTL signal, too.



## LiFeBATT Approval Sheet

### Features:

- ♂ Modular Design
- ♂ ID Switch
- ♂ Isolated Current -Mode UART
- ♂ TTL Protection Signals
- ♂ Self-learning Balance
- ♂ Error Counters
- ♂ Adjustable Warning/Protection Points
- ♂ Easy Interface Transformation
- ♂ PC Monitoring for Program Ready
- ♂ PC QC Program Ready
- ♂ JAVA Monitoring for Program Ready
- ♂ Would Wide Service Chain
- ♂ Easy Maintenance
- ♂ High Reliability
- ♂ High Availability
- ♂ Easy Implementation
- ♂ Support Hierarchical Structure (Huge Pack)