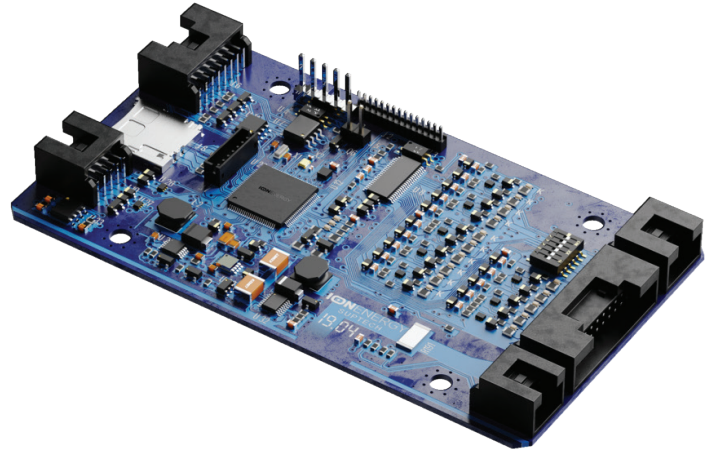


# LT-S2

Feature-rich BMS for standalone & stackable architecture

LT-S2 BMS is a centralized BMS with battery monitoring and system management functions integrated into a single unit. Designed to monitor up to 25 cells individually, LT-S2 can also be connected in a parallel architecture to support hot-plugging & battery-swapping applications seamlessly. LT-S2 is chemistry agnostic and compatible with all leading chemistries of lithium-ion batteries.



## Design

- Compact design & stackable architecture
- Manages from 9 to 25 cells in series
- Upto 2 onboard temperature sensors and 5 thermistor (NTC) inputs for external sensing

## Performance

- State of Charge (SOC), State of Health (SOH) State of Energy (SOE) & State of Overload (SOO) estimations based on advanced algorithms
- Supports paralleling of up to 8 battery packs
- Operation Temperature Range of -20°C to 85°C

## Communication

- CAN bus 2.0 A/B interface for charger control and system interfacing
- Bluetooth 4.1 BLE monitoring capabilities to connect with Maxwell Mobile (iOS & Android)
- Compatible with our Telematics Control Unit to track battery deployments in real-time

## Safety

- Watchdogs and self-diagnostics safety systems
- Detection of 40+ errors & 50+ event flags on the battery
- Supports charge interlock monitoring & contactor weld detection
- Status LEDs for error indication and balancing

## Intelligence

- 300+ calibration parameters to fine-tune performance & configure the BMS in sync with the battery and application
- Monitor and log 65+ parameters in real-time up to 20 years
- Compatible with Maxwell Cloud for better insights into battery life and performance

## Application Software

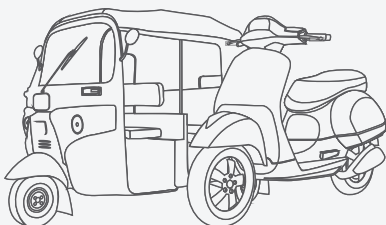
- **Maxwell Mobile:** A companion application that enables an entity to interface with the BMS remotely (iOS & Android)
- **Maxwell Cloud:** A Desktop & Cloud-Analytics Platform which helps track and analyze battery performance

## Standards

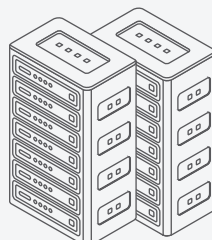
- EMI/EMC - as per ISO 11452
- AIS004, AIS156, CE, RoHS, UN38.3

## Applications

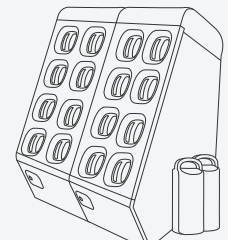
Electric 2 & 3 Wheelers



UPS/Backup Battery Systems



Swappable Battery Systems



## General Specifications

Battery voltage	15S: 18-75V 25S: 32-110V
Cell configuration	9-15 cells (LT-S2-15S) 16-25 cells (LT-S2-25S)
Capacity	105Ah recommended
Maximum balancing current per cell	210 mA @4.2V
Max cell voltage	5V
Voltage measurement accuracy	±25.00 mV @25°C
Active power consumption	2.6W
Sleep power consumption	LT-S2-15S: 50.4mW LT-S2-25S: 173mW
Temperature sensors	LT-S2-15S: 1 on the board + 3 external sensors LT-S2-25S: 2 on the board + 5 external sensors
Temperature measurement accuracy	±1.00°C 0°C to 60°C
Control IO	PDU I/O : charge, discharge, precharge control, current and temperature monitoring 8 GPIO : charge interlock, ignition key, thermal management, status LED, SOC LED, Non-isolated CAN, buzzer control
Communication	2 channels of CAN 2.0 A/B Channel 1: 1kVDC isolation with Wake-up Channel 2: non-isolated for system integration (not present in B & C variants of S2-15/25S) Bluetooth 4.1 for iOS & Android dashboard
Supported CAN speeds	125, 250, 500, 1k kbit/sec
Operation Modes	Active, Sleep, Glimpse
Operating Temperature	-20°C to 85°C
Dimensions (LxWxH)	110 x 61 x 15 mm
Weight	40 g

## Typical LT-S2 Application

