VISION AIR TRONICS

simplifying complexity

PRODUCT BRIEF

15S BATTERY MONITOR AND BALANCER

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VISION AIR TRONICS

15S BMB
PRODUCT BRIEF

The 15S Battery Cell Monitor & Balancer is a precision instrument that ensures multi-cell batteries are maintained in an optimal state, improving system reliability and prolonging battery life.

The 15S Battery Cell Monitor & Balancer does exactly as its name suggests: it monitors cells within a battery, and it balances those cells if and when they require it. Comprehensive data detailing the battery's internal state is sent via the CAN interface.

FEATURES

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- Transforms a "dumb" battery into a smart (self-balancing) battery.
- Supports multiple battery chemistries – LiPo, LiS and LiFe.
- Supports 9 to 15S batteries.
- Galvanically isolated 80 Amp current sensor.
- CAN interface provides control and monitoring of voltages, currents, temperatures.
- Battery temperature monitoring with up to 3 external sensors.
- User-friendly configuration software.
- Rich variety of balancing control options.Seamless integration with 1700W GCU.
- Weight: TBA
- PCB dimensions: 62 x 72mm

USAGE

The Battery Balancer is intended to be connected to a battery, installed into a UAV and interfaced to the vehicle's CAN bus. A pair of indicator lights on the front panel give a "go / no go" indication of the battery's state of balance and state of charge. More detailed battery information is available via the CAN bus.

- Use of the battery balancer confers a number of operational advantages:
- Batteries do not need to be removed periodically to check for balance.
- Battery status is available instantly, either directly from the front-panel LEDs, or remotely from the telemetry data sent on the CAN bus.
- Batteries are maintained in a state of balance, improving flight-readiness.

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SPECIFICATIONS

SPECIFICATIONS IN BRIEF

Electrical

Battery chemistries	LiPo, LiS, LiFe
Battery voltage	65 VDC maximum
Battery cell count	9-15S
Battery temperature sensor	3x 10k NTC (external)
Balancing current	3x 0.45 Apms (max.)
Voltage Measurment accuracy	+- 10mV (typ.)
Power dissipation	6 Watts (max.)
Visual indicators	Balance (red/green), charge (red/green)

Miscellaneous

Environmental protection class	IP67 or IP50
Operating temperature range	-40°C to + 85°C
Altitude rating	10,000m
Cooling	Passive conduction & convection
Enclosure	77 x 75 x 12.7mm
Connectors	TBD
Communications protocols	CAN (1Mb/S)