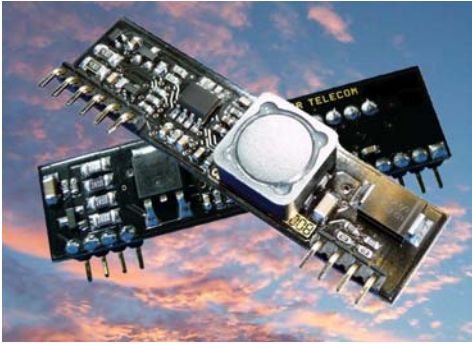


Ag112

Lithium-ion Battery charger Module

V1.1
July 11



- **Charge 1 to 3 cell protected packs (3.7V to 11.1V) up to 3.75Ah Capacity**
- **High Accuracy (<1%) Charge Voltage**
- **Optional Early Charge Termination to prolong battery charge cycle life**
- **Programmable Charge Capacity**
- **Very Wide DC Input Range 9V to 36V**
- **High Efficiency DC-DC converter**
- **Intelligent 'Top-up' Charge mode**
- **Charge Condition Indicator output**
- **Battery Reversal Protection**
- **Over/under temperature shut-down**
- **Overload & short-circuit protection**

The Ag112 is an intelligent, cost effective Lithium-ion (Li-ion) battery charging module. It has been designed to optimise the charge characteristics of 1, 2 or 3 cell (3.7v to 11.1v) protected Li-ion battery packs up to 3.75Ah capacity. Using various intelligent charging techniques the Ag112 technology will safely maximise the manufacturer's specified charge cycle lifetime.

The Ag112 has a very wide input range of 9V to 36V DC. A 24V AC input would need the

addition of just 2 external components. This gives extensive flexibility and means the system and charger would require just one, lower cost, power supply. Used in conjunction with Silver Telecom Power over Ethernet (PoE) modules, the Ag112 can also be used to charge Li-ion batteries from an Ethernet cable.

The charging current can be programmed via external inputs in order to best match the battery's maximum charge rate. Battery terminal voltage is continuously monitored, once full capacity is reached, charging stops. In order to prevent over charge, 'top-up' charges are applied only when the terminal voltage has dropped to a pre-defined level. Early charge termination (80%) can be selected in order to extend charge cycle life.

With the addition of a low-cost external thermistor, ambient temperature can be monitored and charging halted when it reaches a cell damaging level. The Ag112 has a comprehensive charge condition indicator which can be used to monitor all battery charge and fault conditions.

With its high efficiency and intelligent charging techniques, the Ag112 is an ideal solution for reducing power consumption and safely charging a wide range of protected Li-ion battery packs.

