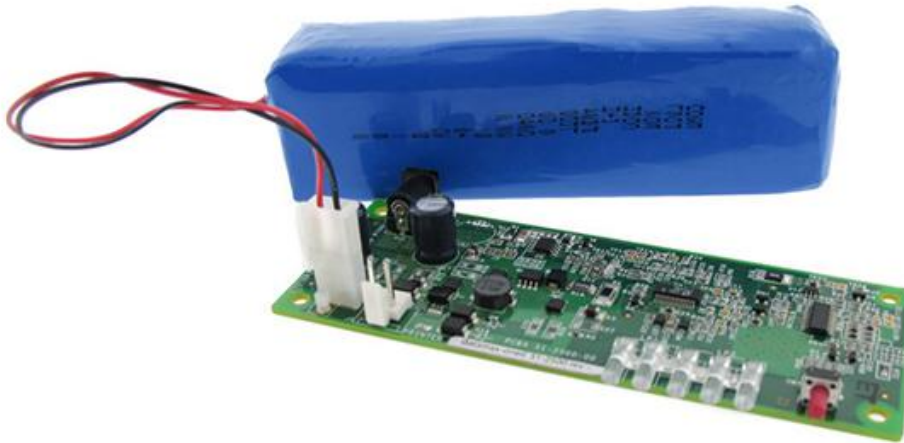


BATTERY CHARGER DESIGN

Customized Battery Charging Solutions

In order to provide our customers with a full power management solution we have the experience and expertise to develop and configure a battery charger that fits your needs.

Proper charging of a battery pack is essential to ensure safe and optimal operation of portable electronic devices. By optimizing both the battery pack and charger during the design phase, manufacturers can take into account all relevant considerations for their portable power source, including charge rate, accurate determination of full charge and charge termination.



We have extensive experience offering customers customized charging solutions, utilizing products from Texas Instruments, Microchip, Analog Devices, Seiko and others that significantly improve the battery charging dynamics. It provides greater efficiency and reduced charging time while improving battery cycle life.

Battery Charger Capabilities

From internal battery chargers, to our extensive array of off the shelf solutions and custom external chargers, our engineering team will work with you configure a battery charger to meet the specific and unique requirements of your battery pack.

- Rapidly configured to your exact requirements
- Compliant with UL, CSA and CE standards
- Domestic and Asia Manufacturing
- Proven solutions for SLA, NiCd, NiMH, Li-Ion, Li Metal
- Custom and off-the shelf solutions

Rechargeable Battery Technologies

	Nickel Cadmium	Nickel Metal Hydride	Lithium Ion	Lithium Metal
Average Cell Voltage (V)	1.20	1.25	3.6	3.0
Energy Density (Wh/kg)	45	55	100	140
Energy Density (Wh/l)	150	180	225	300
Cost (\$/Wh)	0.75 - 1.5	1.5 - 3.0	2.5 - 3.5	1.4 - 3.0
Memory Effect?	Yes	No	No	No
Self-Discharge (%/month)	25	20-25	8	1-2
Discharge Rate	>10C	<3C	<2C	<2C
Charge/Discharge Cycles	1000	800	1000	1000
Temperature Range (°C)	-10 to +50	-10 to +50	-10 to +50	-30 to +55
Environmental Concerns	Yes	No	No	No