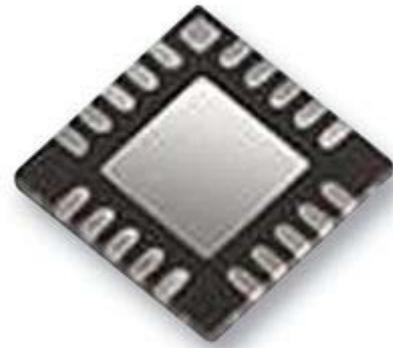




## LTC4009 - High Efficiency, Multi-Chemistry Battery Charger

### General Description:

The LTC4009 is a constant-current/constant-voltage battery charger controller. It uses a synchronous quasiconstant frequency PWM control architecture that will not generate audible noise with ceramic bulk capacitors. Charge current is set by the combination of external sense, input and programming resistors. With no built-in termination, the LTC4009 family charges a wide range of batteries under external control.



The LTC4009 features a fully adjustable output voltage, while the LTC4009-1 and LTC4009-2 can be pin-programmed for lithium-ion/polymer battery packs of 1-, 2-, 3- or 4-series cells.

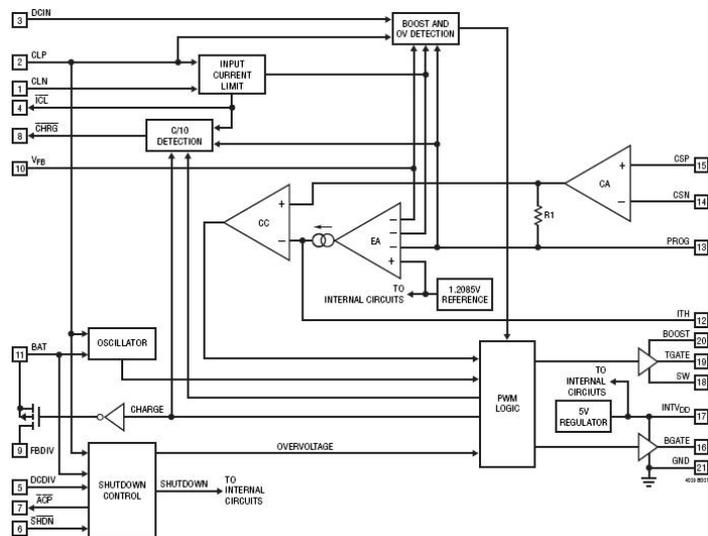
The LTC4009-1 provides output voltage of 4.1V/cell, and the LTC4009-2 is a 4.2V/cell version.

The device includes AC adapter input current limiting which maximizes the charge rate for a fixed input power level. An external sense resistor programs the input current limit, and the ICL status pin indicates when the battery charge current is being reduced as a result of AC adapter current limiting.

The CHRГ status pin is active during all charging modes, including special indication for low charge current.

### Key Features:

- General Purpose Battery Charger Controller
- Efficient 550kHz Synchronous Buck PWM Topology
- $\pm 0.5\%$  Output Float Voltage Accuracy
- Programmable Charge Current: 4% Accuracy
- Programmable AC Adapter Current Limit: 3% Accuracy
- No Audible Noise with Ceramic Capacitors
- Wide Input Voltage Range: 6V to 28V
- Wide Output Voltage Range: 2V to 28V
- Indicator Outputs for AC Adapter Present,



Charging, C/10 Current Detection and Input Current Limiting

- Analog Charge Current Monitor
- Micropower Shutdown
- Thermally Enhanced 20-Pin 4mm x 4mm x 0.75mm QFN Package

## Applications:

- Notebook Computers
- Portable Instruments
- Battery Backup Systems

## Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
LTC4009IUF-1#PBF	1799844	71R4682	CHARGER, MULTI CHEMISTRY, 20QFN
LTC4009IUF-2#PBF	1799840	71R4684	CHARGER, MULTI CHEMISTRY, 20QFN
LTC4009IUF#PBF	1799845	71R4686	BATTERY CHARGER, 20QFN
LTC4009CUF#PBF	1647755	15N5429	CHARGER, MULTI CHEMISTRY, 20QFN
LTC4009CUF-1#PBF	1687111	19P0710	CHARGER, MULTI CHEMISTRY, 20QFN
LTC4009CUF-2#PBF	1687112	19P0711	CHARGER, MULTI CHEMISTRY, 20QFN