

The MCP1630 Multi-Bay Li-Ion Charger is used to evaluate Microchip's MCP1630 used in a SEPIC power converter application. The MCP1630 Multi-Bay Li-Ion Charger is capable of charging two single-cell, Li-Ion battery packs in parallel utilizing an input voltage of 10V to 30V (battery packs are not included). Multiple boards can be daisy-chained for additional charger bays. The MCP1630 Multi-Bay Li-Ion Charger is intended for use in pseudo-smart battery charger applications utilizing battery packs containing Microchip's PS700 Battery Monitor. Standard battery packs can be utilized as well. The MCP1630 Multi-Bay Li-Ion Charger provides a constant current - constant voltage charge with preconditioning, cell temperature monitoring, and battery pack fault monitoring. Each charger bay provides a status and fault indication. The MCP1630 Multi-Bay Li-Ion Charger automatically detects the insertion or removal of a battery pack.



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eatures	Package Contents	
 Ove 	r Voltage Protection (battery removed).	
Ove	r Charge Protection to prevent the battery from becoming dangero	ously overcharged.
Ove	r Current Protection in the event of a shorted battery.	
📕 Bat	ery Reversal Protection.	
📕 Inp	ut Short Circuit Protection.	
OV6	r Temperature Protection to prevent the battery from reaching too !	high a temperature during charge.
📕 Fas	t charge termination if the battery temperature is outside a preset	window.
🖕 Cor	itrolled soft-start.	

The MCP1630 Multi-Bay Li-Ion Charger terminates charge by detecting a predefined charge current threshold during constant voltage charge, or a specified elapsed time.

- The MCP1630 Multi-Bay Li-Ion Charger has the flexibility to optimize the charging algorithm for new battery technology and add proprietary features by coding the microcontroller.
- Programmed parameters modified in firmware

Factory Settings:

Preconditioning Charge Current	=	200 mA
Preconditioning Threshold	(H)	ЗV
Constant Current Fast Charge	=	2A
Constant Voltage Charge	(Ħ	4.2 V
Charge Termination Threshold	=	100 mA

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Documents	Last Updated	Size	
MCP1630/MCP1630V Data Sheet	2/5/2013 2:41:28 PM	345KB	
PIC12F683 Data Sheet	2/19/2007 1:30:02 PM	2MB	
MCP1630 Li-Ion Multi Bay Battery Charger Ref Design Gerbers	1/11/2006 3:15:29 PM	189KB	7
MCP1630 Li-Ion Multi Bay Battery Charger Ref Design Firmware	1/11/2006 3:12:38 PM	9KB	1
MCP1630 Li-Ion Multi-Bay Battery Charger Reference Design User's Guide	12/19/2005 3:41:45 PM	519KB	-

