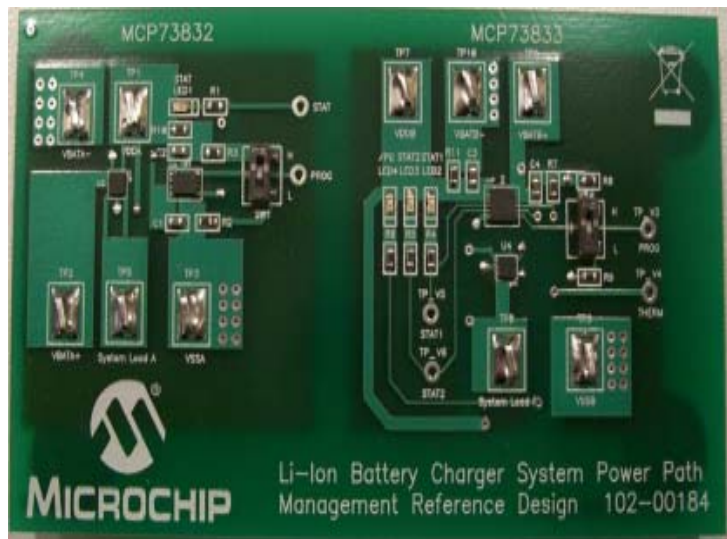




## Microchip - MCP7383XRD – PPM - Battery Management-Reference Design Kit

### Product Overview:

The Li-Ion Battery Charger System Power Path Management Reference Design demonstrates Microchip's stand-alone Linear Li-Ion Battery Chargers - MCP73832 and MCP73833 while allowing input power source to operate the system load. The system load can also be supported by the Li-Ion battery when input power is disconnected. A number of device options allow the MCP73832 and the MCP73833 to be utilized in a variety of applications. Please refer to the MCP73832 data sheet (DS21984) and MCP73833 data sheet (DS22005) for device options. Typical



applications for the reference design are Smart Phones, PDA, Portable Media Players, MP3 Players, Digital Cameras, Handheld Medical devices, Bluetooth headsets, Ultra-Mobile PC and Portable Communicators.

### Kit Content:

This Li-Ion Battery Charger System Power Path Management Reference Design kit

includes:

- Li-Ion Battery Charger System Power Path Management Reference Design, 102-00120
- Analog and Interface Products Demonstration Boards CD-ROM (DS21912)
  - Li-Ion System PPM Reference Design, DS51746
  - MCP73833 Data Sheet, "Miniature Single-Cell, Fully Integrated Li-Ion, Li-Polymer Charge Management Controllers", DS21984

- MCP73832 Data Sheet, "Stand-Alone Linear Li-Ion / Li-Polymer Charger

Management Controller", DS22005

## **Key Features:**

The Li-Ion Battery Charger System Power Path Management Reference Design has the following features:

- Load sharing system power path management that support charging single cell Li-Ion battery and system load at the same time without affecting charging algorithm of Microchip's stand-alone charge management controllers.
- The system load is supported by Li-Ion battery when input power source is removed
- Blue LED indicates charge status
- Additional Red LED to indicate Power-Good (PG) and Green LED to indicate charge complete (Available from MCP73833)
- Dip Switch to select programmable fast charge current between 1000 mA (H) and 50 mA (L) for MCP73833 and 400 mA (H) and 25 mA (L) for MCP73832
- Available THERM pin on the MCP73833 for temperature monitoring with a thermister. It is disabled by default and can be enabled to use with NTC thermister.
- Preconditioning of deeply depleted cells.
- Internal Safety Timer (available from MCP73833)
- Automatic Charge Termination
- Automatic Recharge
- Thermal Regulation Small DFN packages with Exposed Pad as additional heat sink

## **Ordering Information:**

### **Products:**

Part Number	Manufacturer	Farnell P/N	Newark P/N
MCP7383XRD-PPM	Microchip	1676252	45P6121

### **Associated Products:**

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
MCP73837-FCI/MF	Microchip	LI-ION BATTERY CHARGER, 10 DFN	MCP73837	1578450	40M0755
MCP73837-FCI/UN	Microchip	LIION CHARGER, USB/DC-IN, 10MSOP	MCP73837	1675426	77M3068

MCP73838-FCI/MF	Microchip	LI-ION BATTERY CHARGER, 10 DFN	MCP73838	1578457	40M0759
MCP73838-FJI/MF	Microchip	LI-ION BATTERY CHARGER, 10 DFN	MCP73838	1578458	77M3077
MCP73831T-2ACI/OT	Microchip	LI-ION/LI-POLY CHARGE CONTROLLER	MCP73831	1332158	34M7499
MCP73832T-2ACI/OT	Microchip	LI-ION/LI-POLY CHARGE CONTROLLER	MCP73832	1332159	34M7500
MCP73833-AMI/UN	Microchip	LI-ION/LI-POLY CHARGE CONTROLLER	MCP73833	1332160	34M7501

### Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
MCP73831EV	Microchip	EVALUATION BOARD KIT	MCP73831	1332157	NA
MCP73833EV	Microchip	EVALUATION BOARD KIT	MCP73833	1332161	34M7502
MCP7386XEV	Microchip	EVALUATION KIT, BATTERY CHARGE	MCP7386X	1112747	31M0265
MCP73871EV	Microchip	KIT, EVAL, LI-ION CHARGER, MCP73871	MCP73871	1676251	45P6122
MCP1630RD-NMC1	Microchip	MCP1630 NIMH BATT CHARG, REF DESIGN	MCP1630	1673296	19P2768
MCP1630RD-LIC2	Microchip	LI-ION BATTERY CHARGER REF DESIGN	MCP1630	1578366	08N6440
STEVAL-ISB006V1	STMicroelectronics	STW4102 based dual USB/wall adapter Li-Ion battery charger with gas gauge demo board	STW4102	1693282	45P5488

STEVAL-ISB001V1	STMicroelectronics	STD1LNK60Z based Cell Phone Battery Charger Design	STD1LNK60Z	1297502	45P5487
STEVAL-ISA020V1	STMicroelectronics	VIPer12AS-E and TSM101 based 3.5W battery charger demonstration board	VIPer12AS-E and TSM101	1527006	45P5461
SP6652EB	Exar	Evaluation Board	SP6652	1762884	24R0961
SP6648EB	Exar	Evaluation Board	SP6648	1762883	24R0945

## Document List:

## Datasheets:

Part Number	Description	Size
<a href="#">MCP73837/8 Data Sheet</a>	Advanced Stand-Alone Li-Ion / Li-Polymer Battery Charge Management Controller with Autonomous AC-Adapter or USB-Port Source Selection	816KB
<a href="#">Stand-Alone Linear Li-Ion / Li-Polymer Charge Management Controller Data Sheet</a>		1346KB
<a href="#">MCP73831/2 Datasheet</a>		824KB
<a href="#">MCP73826 Datasheet</a>		514KB

## Application Notes:

File Name	Size
<a href="#">AN1149 - Design A Load Sharing System Power Path Management with Microchip's Stand-Alone Li-Ion Battery Charger</a>	234KB
<a href="#">Low Cost Development Tools Guide</a>	1313KB
<a href="#">Advanced Single or Dual Cell, Fully Integrated Li-Ion/Li-Polymer Charge Management</a>	595KB

## Hardware & Software:

File Name	Size
<a href="#">MCP73837/8 AC/USB Dual Input Battery Charger Evaluation Board Gerbers</a>	63KB
<a href="#">MCP7383X Li-Ion System PPM Reference Design Gerbers</a>	188KB
<a href="#">MCP7382x Li-Ion Battery Charger Evaluation Board Gerbers</a>	138KB
<a href="#">MCP7386X Li-Ion Battery Charger Evaluation Board Gerbers</a>	114KB

## Others Resources:

File Name	Size
<a href="#">MCP7383X Li-Ion System Power Path Management Reference Design</a>	612KB
<a href="#">Stand-Alone Analog and Interface Solutions Brochure - English</a>	488KB
<a href="#">MCP7382X Evaluation Kit User's Guide</a>	611KB