

## For More Information

The complete schematic and user's guide for the PICDEM PIC18 Explorer Board, as well as the data sheet for the PIC18F66K80 family of microcontrollers are available on the Microchip web site: <http://www.microchip.com/PIC18K>

### Americas

Atlanta - 678-957-9614  
Boston - 774-760-0087  
Chicago - 630-285-0071  
Cleveland - 216-447-0464  
Dallas - 972-818-7423  
Detroit - 248-538-2250  
Kokomo - 765-864-8360  
Los Angeles - 949-462-9523  
Phoenix - 480-792-7200  
Santa Clara - 408-961-6444  
Toronto - 905-673-0699

### Asia/Pacific

Australia - Sydney - 61-2-9868-6733  
China - Beijing - 86-10-8528-2100  
China - Chengdu - 86-28-8665-5511  
China - Chongqing - 86-23-8980-9588  
China - Hong Kong SAR - 852-2401-1200  
China - Nanjing - 86-25-8473-2460  
China - Qingdao - 86-532-8502-7355  
China - Shanghai - 86-21-5407-5533  
China - Shenyang - 86-24-2334-2829  
China - Shenzhen - 86-755-8203-2660  
China - Wuhan - 86-27-5980-5300  
China - Xiamen - 86-592-2388138  
China - Xian - 86-29-8833-7252  
China - Zhuhai - 86-756-3210040  
India - Bangalore - 91-80-3090-4444  
India - New Delhi - 91-11-4160-8631  
India - Pune - 91-20-2566-1512  
Japan - Yokohama - 81-45-471-6166  
Korea - Daegu - 82-53-744-4301  
Korea - Seoul - 82-2-554-7200  
Malaysia - Kuala Lumpur - 60-3-6201-9857  
Malaysia - Penang - 60-4-227-8870  
Philippines - Manila - 63-2-634-9065  
Singapore - 65-6334-8870  
Taiwan - Hsin Chu - 886-3-6578-300  
Taiwan - Kaohsiung - 886-7-213-7830  
Taiwan - Taipei - 886-2-2500-6610  
Thailand - Bangkok - 66-2-694-1351

### Europe

Austria - Weis - 43-7242-2244-39  
Denmark - Copenhagen - 45-4450-2828  
France - Paris - 33-1-69-53-63-20  
Germany - Munich - 49-89-627-144-0  
Italy - Milan - 39-0331-742611  
Netherlands - Drunen - 31-416-690399  
Spain - Madrid - 34-91-708-08-90  
UK - Wokingham - 44-118-921-5869

08/04/10



**MICROCHIP**

Microchip Technology Inc. • 2355 West Chandler Blvd. • Chandler, AZ 85224-6199

[www.microchip.com](http://www.microchip.com)

The Microchip name and logo and the Microchip logo are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. PICDEM is a trademark of Microchip Technology Incorporated in the U.S.A. and other countries. All other trademarks mentioned herein are property of their respective companies. ISBN: © 2010, Microchip Technology Incorporated, Printed in the U.S.A. All Rights Reserved. 12/10

DS51925A



## PIC18F66K80 Plug-in Module for PICDEM™ PIC18 Explorer Board

### Overview

The PIC18F66K80 Plug-in Module (PIM) is an accessory to the PICDEM™ PIC18 Explorer Board that allows users to easily experiment with the PIC18F66K80 family of microcontrollers. PIC18F66K80 is the superset member of the family and this PIM can be used to evaluate and develop with the PIC18F66K80 products. The PIM takes the place of the on-board PIC18F8722 device. This enables users to quickly evaluate the new PIC18FK Flash devices without having to buy a completely new demo board.

### Getting Started with the PIM

1. Make sure the on-board PIC18F66K80 is programmed to allow the  $\overline{\text{MCLR}}$  Reset pin to function as a Reset pin. If the  $\overline{\text{MCLR}}$  is configured to be used for general purpose I/O, the on-board PIC18F66K80 may interfere with PIM usage, even when the board is switched to ICE mode.
2. Verify that the PICDEM PIC18 Explorer Board is not powered.
3. Set switch, S4, to the "ICE" position. This will hold the on-board PIC18F8722 in Reset, allowing the PIM to function instead.
4. Line up the PIM so its 3-pin female header aligns with the 3-pin riser on the PICDEM PIC18 Explorer Board, then plug the PIM into the demo board.
5. Apply power to the demo board. Be sure that VDD is correct for the device being used (5V for PIC18F66K80). If it is not correct, disconnect power and check that the 3-pin female header is aligned properly with the demo board's 3-pin riser.

### Changes to PICDEM PIC18 Explorer Board Configuration

The difference of available I/O pins between the PICDEM PIC18 Explorer Board's PIC18F8722 device and the PIM's PIC18F66K80 device causes some changes in the operation of the PICDEM PIC18 Explorer Board.

1. Most I/O lines connected to the PICDEM PIC18 Explorer Board's PICTail™ connector, J3/J5/J7/J11 silkscreen, will map 1:1 with PIC18F66K80 I/O pins.
2. The UART pinout is different on the PIC18F66K80 compared to other PIC18 devices. In order to use serial communication through the serial port on the PIC18 Explorer Board, pin, RG0, must be connected to RC7 and pin, RG1, must be connected to RC6. This can be done with two jumpers connecting the two pins using the two debug headers on the Explorer Board.
3. The PIC18F66K80 can operate between 1.8V and 5V. The supplied voltage can be adjusted by populating the PIM board's R101 and R102 resistors. For more detailed information on varying the device voltage, see "PICDEM™ PIC18 Explorer Demonstration Board User's Guide", Section 2.3.3 "Calculating Other VDD Values".

### Demonstration Firmware

The PIM is programmed with firmware demonstrating basic features on the PIC18 Explorer Board. The source for the PIC18F66K80 PIM demo code may be downloaded from the Microchip web site.

# PIC18F66K80 Plug-in Module for PICDEM™ PIC18 Explorer Board

## Board Schematic

