

# UNI/O<sup>®</sup> Bus Parasitic Power Demo Board

## Overview

The UNI/O<sup>®</sup> Bus Parasitic Power Demo Board is designed to illustrate how a standard half-wave rectifier and capacitor circuit can be used to parasitically extract power for a UNI/O device from the SCIO signal as described in application note, AN1213 *“Powering a UNI/O<sup>®</sup> Bus Device Through SCIO.”* This reduces the number of connections necessary for adding a UNI/O device to your application down to two: SCIO and Vss.

The board is designed to interface with the MPLAB<sup>®</sup> Serial Memory Starter Kit, but the included test points allow you to interface the board with any application through the use of test leads (not included).

## Key Features of the Board

- 11AA160, 16 Kbit UNI/O Serial EEPROM, featuring 1.8V to 5.5V operation
- Schottky diode and 4.7  $\mu$ F capacitor for extracting power parasitically
- Test points for application or oscilloscope connections
- Headers for interfacing with standard .300"-wide DIP sockets

## Getting Started

By using the MPLAB Serial Memory Starter Kit, you can read and write the Serial EEPROM directly. The figures below show how to insert the UNI/O Bus Parasitic Power Demo Board into the MPLAB Serial Memory Starter Kit.

### 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 - 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 - 886-7-536-4818  
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

03/26/09



**MICROCHIP**

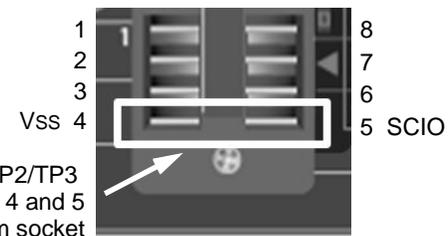
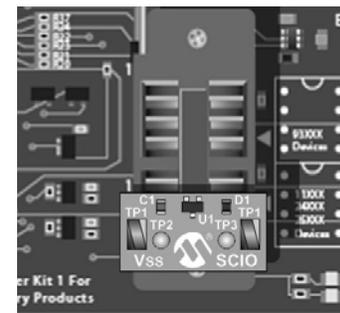
Microchip Technology Inc. • 2355 West Chandler Blvd. • Chandler, AZ 85224-6199  
[www.microchip.com](http://www.microchip.com)

Information contained in this publication is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION OR RELATED SUPPORT SERVICES, IF ANY, INCLUDING BUT NOT LIMITED TO THEIR CONDITION, QUALITY, PERFORMANCE, MERCHANTABILITY OR FITNESS FOR PURPOSE. Microchip disclaims all liability arising from this information and its use. Further, Microchip disclaims all liability arising from information and support obtained from [www.qwikandlow.com](http://www.qwikandlow.com).

The Microchip name and logo, the Microchip logo, PIC and MPLAB are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. PICkit and PICtail are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. All other trademarks mentioned herein are property of their respective companies. © 2009, Microchip Technology Incorporated, Printed in the U.S.A. All Rights Reserved. 08/09



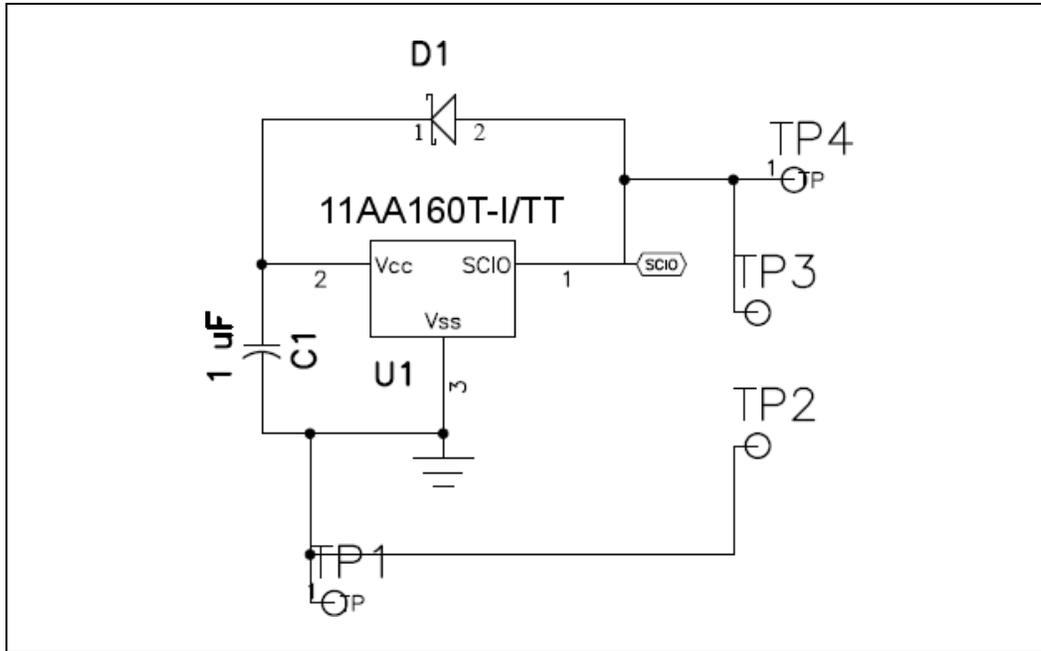
DS22199B



# UNI/O® Bus Parasitic Power Demo Board

## Board Schematic

The schematic for the UNI/O® Bus Parasitic Power Demo board is shown below:



## Bill of Materials

The table below lists the components used for the board:

Designator	Description
U1	Microchip 11AA160 – 1.8V, 16 Kbit UNI/O® Serial EEPROM
C1	4.7 $\mu$ F Ceramic Capacitor
D1	Fairchild Semiconductor RB751S40 – 40V, 30 mA Schottky Diode
TP1, TP4	Keystone Electronics 5016 – Surface Mount Test Point
TP2, TP3	0.100" Pitch, 0.025" Square, 1x1 Breakaway Header

## Other

More information can be found by visiting the Microchip web site at <http://www.microchip.com/unio>.