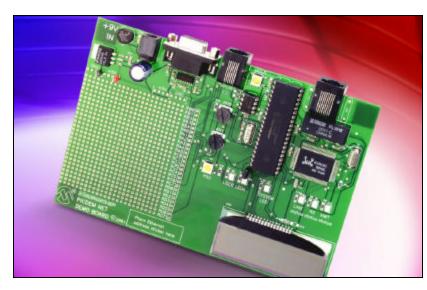
## PICDEM.net<sup>™</sup> Internet/Ethernet Demonstration Board DM163004



The PICDEM.net<sup>™</sup> demonstration board is an Internet/Ethernet demonstration board using the PIC16F877 microcontroller and TCP/IP firmware. The board supports any 40-pin DIP device that conforms to the standard pin out used by the PIC16F877 or PIC18C452.

The firmware used for the network interface was developed by Jeremy Bentham of losoft Ltd. based on his book *TCP/IP Lean: Web Servers for Embedded Systems* (ISBN: 1-929629-11-7).

The PICDEM.net supports Ethernet and RS-232 interfaces. A standard web browser such as Microsoft<sup>®</sup> Internet Explorer or Netscape<sup>™</sup> Navigator is used to view HTML web pages that are generated by the PICmicro<sup>®</sup> microcontroller itself.

The initial board configuration is performed via the RS-232 port using a standard terminal program to configure the IP, Ethernet, etc., addresses for the board.

The demo board is also equipped with a 6-pin modular connector to interface directly with the Microchip In-Circuit Debugger (ICD). With the addition of the ICD (sold separately, P/N DV164002) the developer can now modify or reprogram the onboard FLASH-based PICmicro microcontroller to meet the specific needs. A generous breadboarding area is also available to add your special circuits for experimentation. It is large enough to add an embedded modem to provide for dial up capability.

Several status indicators and user interface devices are provided, including a  $16 \times 2 \text{ LCD}$  indicator and LEDs.

### Features:

- User friendly TCP/IP stack
- Web server with HTML
- 24L256 Serial EEPROM
- Firmware for Xmodem to download web pages into Serial EEPROM
- ICSP™/ICD interface connector
- Ethernet interface
- RS-232 interface
- 16 x 2 LCD display

#### **Includes:**

- Demo Board
- Textbook: TCP/IP Lean: Web Servers for Embedded Systems
- PIC16F877 MCU
- Firmware by losoft Ltd.
- MPLAB® IDE Software
- PICDEM.net User's Guide
- CAT 5 Ethernet Cable
- DB9 Serial Cable
- Universal Power Supply



# **PICDEM.net**<sup>™</sup> Internet/Ethernet Demonstration Board DM163004

## **Ordering Information:**

#### Model Name:

PICDEM.net<sup>™</sup> Demonstration Board

#### **Ordering Part Number:**

DM163004

#### Host System Requirements:

- PC compatible machine with 486 or ٠ higher processor
- 4MB RAM, 16MB recommended
- 2MB available hard disk space
- Microsoft® Windows® 95/98/NT®
- CD ROM Drive
- One serial port

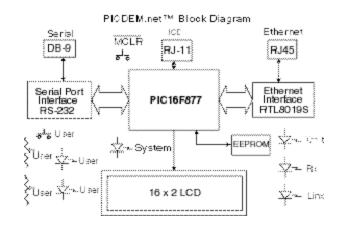
## **Customer Support:**

Microchip Technology maintains a worldwide network of distributors, representatives, local sales offices and Field Application Engineers. To obtain more information contact Microchip Technology's Internet home page at:

http://www.microchip.com

## System Description:

The PICDEM.net board is used to experiment with Microchip's various TCP/IP solutions. The user has immediate network access after the initial set up of the IP address. The FLASH microcontroller allows modifications to the demonstration program to add application software. The breadboard area includes a regulated 5V power supply for the addition of sensors or custom circuits for testing. Other standard or custom stack control software can be loaded for evaluation.



Development Tools from Microchip					
MPLAB®IDE	Integrated Development Environment (hardware/software)				
MPASM <sup>™</sup> Assembler	Universal PICmicro® macro-assembler software				
MPLINK <sup>™</sup> Object Linker	Linker Software				
MPLIB <sup>™</sup> Object Librarian	Librarian Software				
MPLAB SIM Simulator	Simulator Software				
MPLAB C18	C compiler for PIC18CXXX family				
C compilers	Sold by third-party vendors (HI-TECH, IAR, CCS, etc.)				
TCP/IP Software	Sold by third-party vendors (Live Devices, CMX, etc.)				
MPLAB ICD	In-circuit Debugger				
MPLAB ICE 2000	Full-featured modular in-circuit emulator				
PICSTART® Plus Programmer	Entry-level program loader & development kit				
PRO MATE® II Programmer	Full-featured, modular design/production device programmer				

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Microchip Technology Inc. • 2355 W. Chandler Blvd. • Chandler, AZ 85224-6199 • (480) 792-7200 • Fax (480) 792-9210

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