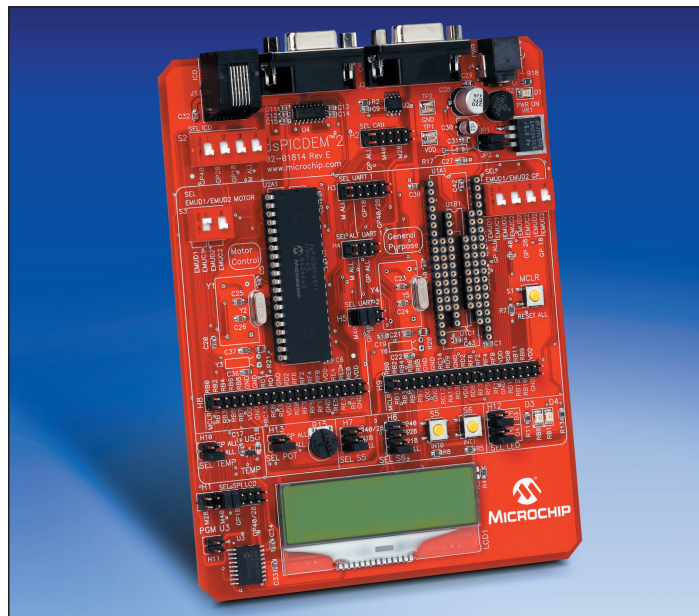


# dsPICDEM™ 2 Development Board

## Summary

The dsPICDEM™ 2 Development Board is a development and evaluation tool that helps you create embedded applications using dsPIC30F Digital Signal Controllers. Sockets are provided for 28 and 40-pin devices in the motor control family and 18, 28 and 40-pin devices in the general purpose and sensor family. The supported devices are shown in the table below.

The board includes a sample dsPIC30F4011 Digital Signal Controller in the 40-pin motor control socket, a power supply regulator, crystal oscillators for each set of sockets, an ICD connector for the MPLAB® ICD 2 In-Circuit Debugger and both RS-232 and CAN ports for external communication. In addition, the board is populated with prototyping hardware, including LED indicators, push button switches, a potentiometer, a temperature sensor and a 2x16 LCD screen. All pins on all the device sockets are accessible through headers.



## Features

Key features of the dsPICDEM 2 Development Kit include:

- Multiple sockets for 18, 28 and 40-pin PDIP and SPDIP devices
- Sample application programs complete with MPLAB IDE workspace and project files provided for supported dsPIC30F devices
- dsPIC30F4011 40-pin PDIP sample device installed on the board
- 5V regulator provides VDD and AVDD from a 9V DC power supply.
- MPLAB ICD 2 In-Circuit Debugger ready
  - Options for selecting alternate debugging channels
- MPLAB ICE 4000 ready
- RS-232 interface
- Controller Area Network (CAN) interface
- Temperature sensor and analog potentiometer to simulate A/D inputs
- 2 push button switches and 2 LED indicators to simulate digital input and output
- 2x16 ASCII Character LCD with SPI™ interface
- Access to all pins on the dsPIC30F device sockets via 2x40-pin headers

dsPIC30F Device	Supported Packages
<b>Motor Control Family</b>	
30F2010	28-pin SPDIP
30F3010	28-pin SPDIP
30F4012	28-pin PDIP
30F3011	40-pin PDIP
30F4011	40-pin PDIP
<b>Sensor Family</b>	
30F2011	18-pin PDIP
30F3012	18-pin PDIP
30F2011	28-pin SPDIP
30F3013	28-pin SPDIP
<b>General Purpose Family</b>	
30F3014	40-pin PDIP
30F4013	40-pin PDIP



Microchip Technology Incorporated

## Package Contents

- dsPICDEM™ 2 Development Board with dsPIC30F4011 sample device installed on-board
- CD with documentation and sample application programs
- Sample pack containing dsPIC30F3012 and dsPIC30F4013 devices

## Host System Requirements

- PC-compatible system with an Intel® class processor, or equivalent
- A minimum of 16 MB RAM
- A minimum of 40 MB available hard drive space
- CD ROM drive
- Microsoft® Windows® 98, Windows NT 4.0, Windows 2000 or Windows XP

## Part Numbers and Ordering Information

### dsPICDEM™ 2 Development Board

Part Number	Description	Availability
DM300018	dsPICDEM™ 2 Development Board (Supports dsPIC30F2010, dsPIC30F2011, dsPIC30F3010, dsPIC30F3011, dsPIC30F3012, dsPIC30F3013, dsPIC30F3014, dsPIC30F4011, dsPIC30F4012 and dsPIC30F4013)	June 2005

### dsPIC® Development Tools from Microchip

MPLAB® IDE	Free
MPLAB® Visual Device Initializer (included in MPLAB® IDE)	
MPLAB® C30 C Compiler	SW006012
MPLAB® ICD 2 In-Circuit Debugger/Programmer	DV164005, DV164007
MPLAB® ICE 4000	ICE4000
MPLAB® PM3 Universal Device Programmer	DV007004
dsPIC30F Math Library (included in download of MPLAB® C30 C Compiler)	Free
dsPIC30F DSP Library	Free
dsPIC30F Peripheral Library	Free
dsPICworks™ Data Analysis and DSP Software	Free
dsPIC® Digital Filter Design	SW300001
dsPIC30F Soft-Modem Library	SW300002/3/4/5
dsPIC® Speech Recognition Library	SW300010/11/12
dsPIC® Symmetric Key Embedded Encryption Library	SW300050
dsPIC® Asymmetric Key Embedded Encryption Library	SW300055
dsPIC30F Acoustic Echo Cancellation Library	SW300060
dsPIC30F Noise Suppression Library	SW300040
CMX-RTX™ for dsPIC30F	SW300031
CMX-Tiny+™ for dsPIC30F	SW300032
CMX-Scheduler™ for dsPIC® Devices	Free at www.cmx.com
dsPICDEM™ Starter Demonstration Board	DM300016
dsPICDEM™ 28-Pin Starter Demonstration Board	DM300017
dsPICDEM™ 1.1 General Purpose Development Board	DM300014
dsPICDEM™ MC1 Motor Control Development System	DM300020
dsPICDEM.net™ 1 Connectivity Development Boards	DM300004-1
dsPICDEM.net™ 2 Connectivity Development Boards	DM300004-2

**Americas:** Atlanta (770) 640-0034 • Boston (774) 760-0087 • Chicago (630) 285-0071 • Dallas (972) 818-7423 • Detroit (248) 538-2250 • Kokomo (765) 864-8360 • Los Angeles (949) 462-9523 • San Jose (650) 215-1444 • Toronto (905) 673-0699 • **Asia/Pacific:** Australia-Sydney 61-2-9868-6733 • China-Beijing 86-10-8528-2100 • China-Chengdu 86-28-8676-6200 • China-Fuzhou 86-591-8750-3506 • China-Hong Kong SAR 852-2401-1200 • China-Shanghai 86-21-5407-5533 • China-Shenyang 86-24-2334-2829 • China-Shenzhen 86-755-8203-2660 • China-Shunde 86-757-2839-5507 • China-Qingdao 86-532-502-7355 • India-Bangalore 91-80-2229-0061 • India-New Delhi 91-11-5160-8631 • Japan-Kanagawa 81-45-471-6166 • Korea-Seoul 82-2-554-7200 • Singapore 65-6334-8870 • Taiwan-Kaohsiung 886-7-536-4818 Taiwan-Taipei 886-2-2500-6610 • Taiwan-Hsinchu 886-3-572-9526 • **Europe:** Austria-Weis 43-7242-2244-399 • Denmark-Ballerup 45-4450-2828 • France-Massy 33-1-69-53-63-20 • Germany-Ismaning 49-89-627-144-0 • Italy-Milan 39-0331-742611 • Netherlands-Drunen 31-416-690399 • England-Berkshire 44-118-921-5869 (As of 3/05)

Microchip Technology Inc. • 2355 W. Chandler Blvd. • Chandler, AZ 85224-6199 • (480) 792-7200 • FAX (480) 792-7277

The Microchip name and logo, the Microchip logo, Accuron, dsPIC, KeeLoq, microID, MPLAB, PIC, PICmicro, PICSTART, PRO MATE, PowerSmart, rPIC and SmartShunt are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. AmpLab, FilterLab, Migratable Memory, MXDEV, MXLAB, PICMASTER, SEEVAL, SmartSensor and The Embedded Control Solutions Company are registered trademarks of Microchip Technology Incorporated in the U.S.A. Analog-for-the-Digital Age, Application Maestro, dsPICDEM, dsPICDEM.net, dsPICworks, ECAN, ECONOMONITOR, FanSense, FlexROM, fuzzyLAB, In-Circuit Serial Programming, ICSP, ICEPIC, MPASM, MPLIB, MPLINK, MPSIM, PCKIT, PICDEM, PICDEM.net, PICLAB, PICtail, PowerCal, PowerInfo, PowerMate, PowerTool, rLAB, rPICDEM, Select Mode, Smart Serial, SmartTel Total Endurance and WiperLock are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. SQTP is a service mark of Microchip Technology Incorporated in the U.S.A. All other trademarks mentioned herein are property of their respective companies. © 2005, Microchip Technology Incorporated, Printed in the U.S.A., All Rights Reserved. 3/05

DS70147A

