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# PICDEM™ Z
# ZigBee™ Technology Demonstration Kit

## Summary

The PICDEM™ Z demonstration board is an easy-to-use ZigBee™ Technology wireless communication protocol development and demonstration platform. The demonstration kit includes the ZigBee protocol stack and two PICDEM Z boards, each with an RF daughter card.

The demonstration board is also equipped with a 6-pin modular connector to interface directly with Microchip's MPLAB® ICD 2 in-circuit debugger (DV164005). With MPLAB ICD 2, the developer can reprogram or modify the PIC18 MCU Flash memory and develop and debug application code all on the same platform. Microchip MPLAB IDE software is available for download on the Microchip web site at no charge.
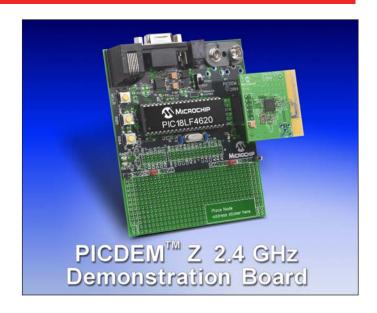
## Features

Key features of the PICDEM Z Demonstration Board include:

- ZigBee software stack supporting RFD (Reduced Function Device), FFD (Full Function Device) and Coordinator
- PIC18LF4620 MCU featuring nanoWatt Technology, 64 KB Flash memory and robust integrated peripherals
- RF transceiver and antenna interface via daughter card for flexibility
- Supports 2.4 GHz frequency band via Chipcon CC2420 RF transceiver
- ICSP™ and MPLAB ICD 2 interface connector
- RS-232 interface
- 9V DC to 3.3V DC regulator
- Temperature sensor (Microchip TC77), LEDs and button switches to support demonstration

## Package Contents

- Two PICDEM Z demonstration boards each with an RF transceiver daughter card
- ZigBee protocol stack source code (on CD ROM)
- PICDEM Z User's Guide (on CD ROM)



PICDEM™ Z 2.4 GHz Demonstration Board

## ZigBee Protocol Stack Availability

The ZigBee software stack is available from Microchip under a no-cost license agreement. The source code and license are available for download from the Microchip web site at www.microchip.com.

## Host System Requirements

- PC-compatible system with an Intel Pentium® class or higher processor, or equivalent
- A minimum of 32 MB RAM, 128 MB recommended
- A minimum of 85 MB available hard disk space
- Microsoft Windows® 98 Second Edition, Windows ME, Windows 2000 or Windows XP
- CD ROM drive
- One serial port

MICROCHIP
Development Systems
Microchip Technology Incorporated

## Part Numbers and Ordering Information:

| PICDEM™ Z ZigBee™ Technology Products | | |
|---|---|---|
| **Part Number** | **Description** | **Availability** |
| DM163027-2 | PICDEM Z 2.4 GHz Demo Kit | December 2004 |
| AC163027-1 | PICDEM Z Motherboard | December 2004 |
| AC163027-2 | PICDEM Z 2.4 GHz RF Card | December 2004 |

| Development Tools from Microchip | |
|---|---|
| MPLAB® IDE | Integrated Development Environment (IDE) |
| MPASM™ Assembler | Universal PICmicro® Macro-Assembler |
| MPLINK™ Linker/MPLIB™ Librarian | Linker/Librarian |
| MPLAB SIM Simulator | Software Simulator |
| MPLAB C18 | C Compiler for PIC18CXXX MCUs |
| MPLAB C30 | C Compiler for dsPIC30F MCUs |
| PICkit™ 1 | Flash Starter Kit |
| MPLAB ICD 2 | In-Circuit Debugger |
| MPLAB ICE 2000 | Full-featured Modular In-Circuit Emulator for PIC12, PIC16 and PIC18 MCUs |
| MPLAB ICE 4000 | Full-featured Modular In-Circuit Emulator for PIC18 and dsPIC MCUs |
| PICSTART® Plus Programmer | Entry-level Development Kit with Programmer |
| MPLAB PM3 Device Programmer | Full-featured, Modular Device Programmer |
| KEELOQ® Evaluation Kit | Encoder/Decoder Evaluator |
| microID® Developer's Kit | 125 kHz and 13.56 MHz RFID Development Tools |

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