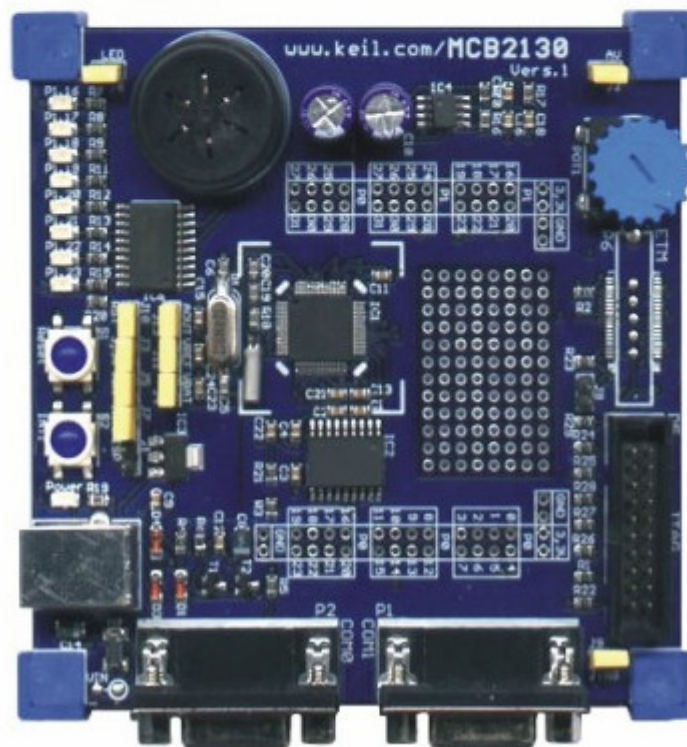


The Keil **MCB2130 Evaluation Board** allows you to generate and test application programs for the NXP LPC2100 microcontroller family. With this hands-on process, you can determine hardware and software components required for current and future product development.

The MCB2130 Evaluation Board ships with an LPC213x device that is a superset of several other device variants of the [NXP LPC2100 microcontroller series](#). The MCB2130 Board contains all hardware components that are required in a single-chip LPC2100 system plus 2 COM ports for serial RS232 output.



Kit Contents

The MCB2130 kit includes:

- The MCB2130 Evaluation Board.
- A μ Vision IDE Quick Start Guide.
- An ARM Development Tools Overview.
- A CD-ROM that includes:
 - An evaluation version of the [RealView MDK-ARM Microcontroller Development Kit](#).

Example programs for the MCB2130 Evaluation Board.

Features

The connectors on the MCB2130 evaluation board provide easy access to many of the on-chip peripherals.

- **Dual Serial Ports**

Standard DB9 connectors are on the MCB2130 board for both of the LPC2138's serial ports. Your application may use either or both of these ports.

- **LF Amplifier**

An LF Amplifier is on the MCB2130 board to connect the D/A output of the LPC2138 device to a speaker. You may use this LF Amplifier to generate sound.

- **Analog Voltage Control for ADC Input**

An adjustable analog voltage source is on the MCB2130 board for testing the Analog to Digital output feature of the LPC2138. A configuration jumper enables and disables this feature.

- **JTAG Download and Debug**

A JTAG interface is on the MCB2130 board and, coupled with the ULINK USB-JTAG adapter, allows flash programming. The on-chip debug interface can perform real-time in-circuit emulation of the LPC2138 device. For fast PC communication, use your PC's USB port.

Hardware Requirements

To use the MCB2130 Evaluation Kit, you need:

- The MCB2130 Evaluation Board.
- An IBM-compatible PC with one of the following:

Two unused USB ports to supply power to the board, and to perform ULINK USB-JTAG downloading and debugging.

Or

An unused RS232 COM port for Flash In-System Programming (ISP) via Serial Interface.

To run the Keil debugger using JTAG emulation you need:

- A ULINK USB-JTAG Adapter.
- Two USB serial cables, no longer than 10ft/3m.

To program the MCB2130 using the [Flash Magic utility](#), you need:

- A serial cable, 9-pin male to 9-pin female, no longer than 10ft/3m, wired one-to-one.

Software Requirements

You must install the following required software to use the MCB2130 Evaluation Board:

Windows Operating System

The Keil μ Vision tool chain runs in these Windows Operating Systems:

- Microsoft Windows 2000
- Microsoft Windows XP

Tools and Examples

To compile, link and run applications on the MCB2130 Evaluation Board, you must install these Keil products :

- [Keil Professional Development Suite for ARM](#) CD-ROM included with this kit.
- Example programs written for the MCB2130. These programs are included in the PK-ARM, DB-ARM and Keil ARM Evaluation Toolkits.