

LPC1766 Starter Kit Getting Started V1.0



EMBEST CO., LIMITED

Address: Room 509, Luohu Science & Technology Building,
No.85, Taining Road, Shenzhen, Guangdong, China 518020

Telephone: 0086-755-25621715

Fax: 0086-755-25616057

Sales Email: sales.en@embedinfo.com

Support Email: support.en@embedinfo.com

Information Email: info@embedinfo.com

Website: <http://www.embedinfo.com/en>

Request Technical Assistance: <http://embedinfo.com/en/request.asp>

Overview

The LPC1766 starter kit of Embest is a low cost evaluation kit for NXP LPC1766 Cortex-M3 core-based microcontrollers, contains a full-featured LPC1766 evaluation board and a JTAG Emulator for ARM Cortex-M3. The kit provides plenty of example project running on Keil RealView MDK IDE, so engineers can easily start to learn and test all the relevant applications on it, or evaluate your new project design through this entire system.



Figure1. LPC1766 Starter Kit

1.1 Deliverables

- 1 x NXP LPC1766 ARM Cortex-M3 Board
- 1 x Emlink for ARM JTAG Emulator
- 1 x RS-232 Serial Cable
- 1 x USB Cable
- 1 x 2.4 Inches TFT LCD Panel (assembled to the LPC1766 Board)
- 1 x RJ45 Ethernet Cable
- 1 x JTAG20-14-8 Convert Module
- 1 x IDC14 Cable
- 1 x 8pins Debug Cable
- 1 x CDROM of this kit
- 1 x Packing list
- 1 x Getting started (this paper)

1.2 Hardware Requirements

In order to use this LPC1766 Starter Kit, we recommend you to prepare the following hardware devices:

- (1) One LPC1766 ARM CORTEX-M3 Board.

(2) A PC with the following resources:

- ◆ Two unused USB ports—one is for power supply of the board and the other for connecting to the JTAG Emulator to download and debug programs.
- ◆ An unused RS-232 COM port for Flash In-System Programming (ISP) via the Serial Interface.

(3) One USB-JTAG Emulator.

(4) Two USB cables.

(5) One double Female Serial Cable

1.3 Software Requirements

To use the lpc1766 starter kit, we recommend you to install the following software tools:

(1) Windows Operating System

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

- ◆ Microsoft Windows 2000
- ◆ Microsoft Windows XP

(2) Tools and Examples

To compile, link, and run applications on the LPC1766 Evaluation Board, please install the following products on your pc:

- ◆ Keil RealView MDK IDE

The Keil RealView MDK IDE is a commercial software tool, if you don't have this IDE on your PC, you can purchase the authorized edition from Keil Corporation, or download the evaluation version of RealView MDK (32KB limited) for free of charge. Of course, you can use other IDE as well, such as IAR EWARM, but we suggest you using Keil RealView MDK IDE, then you can use the example projects provided in the CD-ROM of the kit.

- ◆ Example projects written for the LPC1766 Starter Kit. These example programs are stored in the CD-ROM accompanied with the kit.

1.4 Power Supply

LPC1766 ARM Cortex-M3 board supports two power supply modes; you can select one of these two power supply modes below through JP12 configuration.

(1) Supply 5V DC through power jack (JP11) on the board.

(2) Supply power through USB connector (CON1) on the board, the current should be less than 500mA

1.5 Connection

To use the LPC1766 Starter Kit, you must:

- Connect the JTAG connector of Emlink for ARM to the JTAG connector of the LPC1766 ARM Cortex-M3 board.
- Connect the USB connector of Emlink for ARM to the USB connector of the PC.
- Connect power to the board using a standard USB A/B cable.