EMBEST CO., LIMITED

# LPC1768 Starter Kit
# Getting Started
# V1.0

## EMBEST CO., LIMITED

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**The Development Specialist Of Embedded System**

# Overview

The LPC1768 starter kit of Embest is a low cost evaluation kit for NXP LPC1768 Cortex-M3 core-based microcontrollers, contains a full-featured LPC1768 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. LPC1768 Starter Kit

## 1.1 Deliverables

• 1 x NXP LPC1768 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 LPC1768 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 (paper)

• 1  x Getting started (paper)

## 1.2 Hardware Requirements

In order to use this LPC1768 Starter Kit, we recommend you to prepare the following hardware devices:

(1) One LPC1768 ARM CORTEX-M3 Board.

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(2) A PC with the following resources:

◆ Two unused USB ports—one is for power supply r 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 LPC1768 starter kit, we recommend you to install the following software tools:

(1) Windows Operating System

The Keil µVision 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 LPC1768 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 ion 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 LPC1768 Starter Kit. These example programs are stored in the CD-ROM accompanied with the kit.

## 1.4 Power Supply

LPC1768 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 connecter (CON1) on the board, the current should be less than 500mA

## 1.5 Connection

To use the LPC1768 Starter Kit, you must:

• Connect the JTAG connector of Emlink for ARM to the JTAG connector of the LPC1768 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.