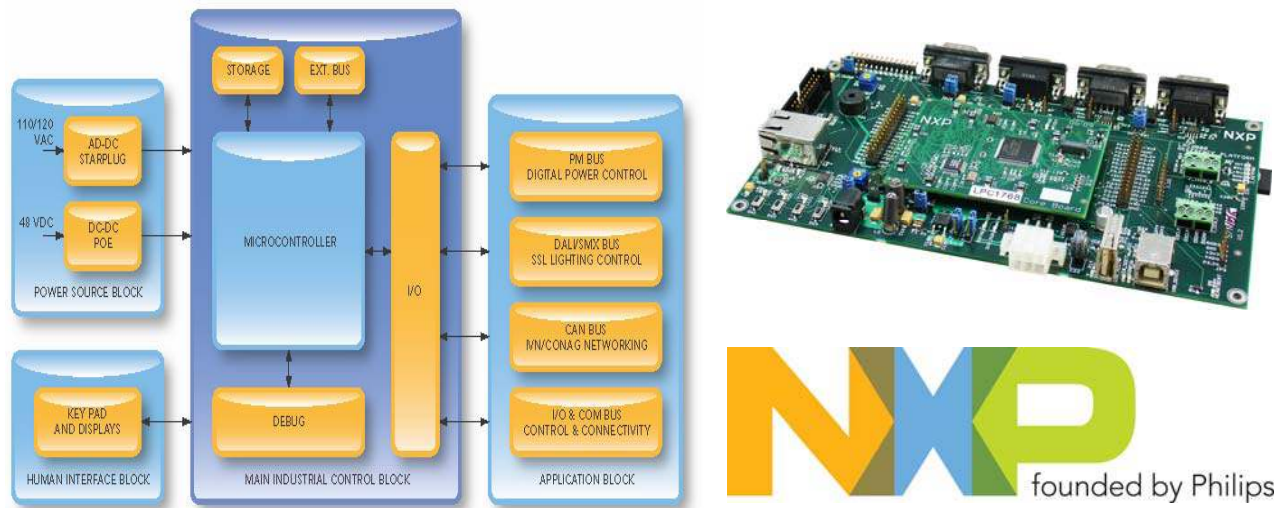


# IRD-LPC1768-DEV



## Highlights

- **LPC1768 100MHz ARM Cortex-M3 microcontroller**
- **10/100 Ethernet port**
- **USB Host or Device port**
- **Two CAN ports**
- **Serial interfaces (I2C, UART, SPI, I2S)**
- **Two RS-232 ports**
- **Parallel interface for display (4-line by 20-character LCD module included)**
- **I<sup>2</sup>C interface for keypad and other peripherals**
- **5V 2A Power Supply (included) or USB Device Port powered**
- **Includes Keil uVision3 IDE software (60-day free trial version, 256K code size limited) and ULINK-ME JTAG debugger**
- **Contains easy-to-use application documents for all hardware and software**
- **Platform is based on a modular design for maximum flexibility**

The NXP LPC1768 Cortex-M3 microcontroller based industrial reference design (IRD) is optimized to save development time in typical industrial control applications. Its modular format uses a base, core, and application board configuration for added flexibility. The kit is preconfigured to work with Keil uVision3 development environment, and example code for converting your ARM7 application to NXP Cortex-M3 LPC176x microcontroller series devices.

Using NXP's cost effective Cortex-M3 microcontrollers as the basis for each platform means that designers can create competitive, highly differentiated products at a lower overall cost. The application board plugs directly into the base board via a common application connector and software configures the system for plug-and-play operation.

# Features

## LPC1768 Core Board Description

The industrial control platform includes an NXP Cortex-M3 LPC1768 microcontroller core board running at 100MHz. The LPC1768 has 512kB of on-chip high speed Flash memory, 64kB of on-chip RAM, a 10/100 Ethernet Media Access Controller (MAC) port, a USB full speed device/host/OTG port, two CAN channels, and a collection of serial communications interfaces.

## Software Included

The IRD software includes examples for USB Device (HID), I2C, UART, Timers, and other core microcontroller functions. The Keil uVision3 compiler and debugger are used for software development. The IRD development kit includes a ULINK-ME JTAG debugger along with a time and size restricted trial version of the Keil software development suite.



## Ordering Information

**Part Number: IRD-LPC1768-DEV**

**Order Online at:**  
[www.digikey.com](http://www.digikey.com)

**NXP: OM11074**

**Warranty: 30-day money back guarantee**  
**Availability: Stock**

**(256) 883-1240 Phone**  
**(256) 883-1241 FAX**

[www.teamfdi.com/ird-lpc1768-dev](http://www.teamfdi.com/ird-lpc1768-dev)

**Kit Contents:**

**Industrial Reference Design Hardware:**

- LPC1768 Core Board
- IRD Base Board
- 20-character by 4 line alphanumeric LCD
- 27 key style membrane keypad board
- 5VDC, 2.0A Power Supply
- USB, Ethernet & RS232 Cables
- External Temperature Sensor Cable

**IRD Software Included:**

- Keil uVision3 Evaluation CD
- Keil ULINK-ME JTAG Debugger
- IRD Quick Start Guide
- Link for downloading updated source code

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