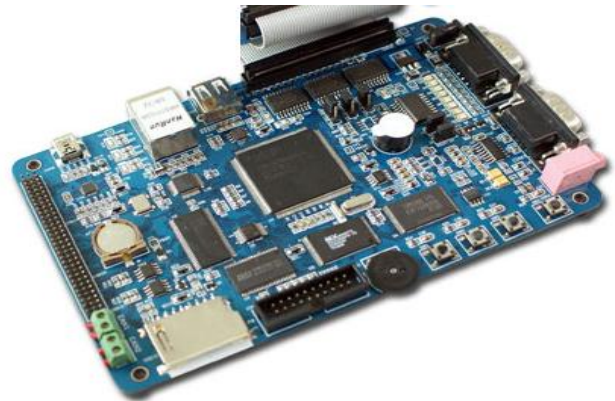# Embest - EM-LPC2478B - LPC2478 Evaluation Board

Product Overview:

The LPC2478 is an ARM microcontroller core based evaluation board produced by Embest, operating at 72MHz, with up to 512KB on-chip flash memory and 98KB on-chip SRAM. The board provides a wide range of functional devices like: Ethernet, USB host and USB OTG circuit, SD/MMC interface, LCD, UART, I2C, CAN, I2S, ADC/DAC circuit, which is especially suitable for the development of industrial control, communication, automation, medical appliance. The LPC2400 platform is compatible with LPC2460, LPC2470, LPC2468, LPC2478, etc. The comprehensive software examples and resources we provide for this board will help you quickly start your project development and personal study.

Kit Contents:

Take the EM-LPC2478B out of its box. Included in the box are:

- NXP LPC2478 ARM7S Board
- RS-232 Serial Cable / DB9 F-M
- USB Cable / A-B
- RJ45 Ethernet Cable

Key Features:

- LPC2478 (NXP) , ARM7TDMI-S, the frequency is up to 72MHz.

- 512KB on-chip flash memory, 98KB on-chip SRAM
- 64MB Nand Flash, 32MB SDRAM, 2MB Nor RAM, 512KB external SRAM(optional), 16MB SPI Flash Memory(optional).
- Two RS232 interfaces, the serial port 0 includes automatic ISP circuit.
- USB2.0 standard, with status indicator light, one USB HOST interface, one USB OTG interface
- Support TFT(5:6:5)LCD interface, with Buffer chip driver
- Support 1602 character LCD(suited for LPC2468 evaluation board)
- Support two-channel CAN bus

- One SD/MMC interface
- Use audio decoding chip HT28V31, be able to play music directly
- PHY chip using the DP83848 of American National Semiconductor, three LED connecting indicator light
- One reset button, use special reset chip to reset, stable and reliable.
- One 20 pin Multi-ICE standard JTAG interface, support variable JTAG emulators debug online.
- 5V DC power input with power status indicator light
- Three small buttons, eight highlight LED, one buzzer

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
EM-LPC2478B	Embest	NA	64R5912

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
DP83848TSQ	National	Ethernet Transceiver IC	1602447	99K1892
EMLINK-AH	Embest	Emlink for ARM	NA	63R5721
SW_LICA	Embest	Emlink for ARM License	1788113	63R5737
SPC19944	SPC TECHNOLOGY	Shielded Serial Cable Assembly	1702771	83K3689
SPC15457	SPC TECHNOLOGY	Standard 9 Pin D-Subminiature Connector	1653954	79K5032
SPC21961	SPC TECHNOLOGY	Category 5e Cable Assembly	1363809	21M5875
555052-1	TYCO ELECTRONICS	RJ45 JACK	1557068	66F3284
897-43-004-90-000000	MILL MAX	USB Connector	1621546	84K7068

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
LPC2478B-LM	Embest	LPC2478 evaluation board with TFT LCD	LPC2748	NA	64R5931

LPC2478-STK	Nxp	Development Prototype Board	LPC2748	NA	NA

Document List:

Datasheets:

Part Number	Description	Size
MAX3232	RS-232 Transceivers	752KB
LM1117DT-ADJ	800Ma Low-Dropout Linear Regulator	647KB
DP83848K	10/100 Mb/s Ethernet Transceiver	1.25MB
LPC2478	LPC2478 Single-chip ARM7TDM Microcontroller	423KB

Application Notes:

File Name	Size
AN10438 Philips LPC2000 CAN driver	348KB
AN10835 LPC2000 secondary bootloader for code update using IAP	476KB
AN10403 Connecting ethernet interface with LPC2000	128KB
AN10302 Using the Philips LPC2000 Flash utility with the Keil MCB2100 and IAR LPC210x Kickstart	2.1MB
AN10414 Handling of spurious interrupts in the LPC2000	181KB