Product Number: EA-0EM-101

LPC2468 OEM Board and OEM Base Board Basic

Features

Embedded Artists' LPC2468 OEM Board (mounted on the OEM base Board Basic) lets you get up-and-running quickly with NXP's ARM7TDMI LPC24xx microcontroller series in general and with LPC2468 in particular. The board is only 66x80 mm and is perfect for running uClinux with large on-board RAM and FLASH. All processor signals are available on two 100 pos connector for easy expansion.
The board can be used in OEM applications, as well as for education purposes, experiment, and prototype projects.

uClinux Distribution
We provide a uClinux distribution for the board based on Linux 2.6 and using u-Boot 1.1.6 for booting.
The distribution is provided "as-is" and without any support. A yahoo group exist for the board for sharing experiences.
We do, however, provide a support page packed with information how to get started with uClinux, working with drivers and developing uClinux applications.
A DVD is included (only with this bundle) with a complete Linux development environment for uClinux development, based on VMware Player™ technology - ***you can develop for uClinux on your Windows PC!***

LPC2468 OEM Board Features

Feature	Description
Processor	NXP's ARM7TDMI LPC2468 microcontroller in BGA package
Program Flash	128 MB NAND FLASH, 4 MB NOR FLASH + 512 kB internal
Data Memory	32 MB SDRAM + 96 KB internal **16-bit data bus to SDRAM**
Ethernet	100/10M Ethernet interface based on Micrel KSZ8001L Ethernet PHY
Clock Crystals	• 12.000 MHz crystal for CPU • 32.768 kHz crystal for RTC
Dimensions	66 x 80 mm
Power	• +3.3V powering
Connectors	• Two 100 pos Hirose expansion connector (FX8C-100), 0.6mm pitch
Other	• ISP1301 chip of USB-OTG • 256 Kbit I2C E2PROM for storing non-volatile parameters • Buffered 16-bit databus

OEM Base Board Basic Features

Feature	Description
Connectors	• Two 100 pos, 0.6mm pitch Hirose FX8C-100 connectors for OEM Board • Ethernet connector (RJ45) • MMC/SD interface & connector • JTAG connector • Pads for ETM connector
Interfaces	• USB OTG interface & connector • USB device interface & connector • USB host interface & connector • Full modem RS232 on UART #1 • CAN interface & connector
Power	• Power supply, either via USB or external 9-15V DC • 0.3F capacitor backup for RTC
Expansion	• Color QVGA LCD expansion connector (serial and parallel interface options)
Other	• 5 push-button keys (4 via I2C) • 5 LEDs (via I2C) • 2 Analog inputs • USB-to-serial bridge on UART #0, and ISP functionality • Reset push-button and LED • Speaker output on v1.5 of OEM Base Board • All OEM Board signals available on expansion connector/pads • 240x150 mm in size

Software

In order to ease the development of and experiments with application programs our boards are delivered with a lot of software/sample applications.

- **Pre-emptive Real-Time Operating System (RTOS)** - the RTOS is delivered as a binary package together with some sample applications that illustrate different functionalities of the RTOS.
  Can be used for non-commercial applications.
- **SDRAM initialization example**.
- **Sample applications**.

QuickStart Build Environment
In order to be able to build the sample applications (and your own applications) you get access to Embedded Artists' build environment. It is based on GCC v3.4.3 + newlib as the compiler.

Advantages

Embedded Artists' LPC2468 OEM Board is not just another prototyping board. The many unique features and the extensive support package provided gives you a head start before your competitors.

- Get up-and-running quickly
  - Start developing/experimenting on day 1
  - Embedded Artists's QuickStart Build Environment included (compiler, linker, make, editor, etc.) – based on GCC
  - Many sample applications included
  - Extensive documentation
- Real-time operating system (RTOS) included
- Board support package (BSP) included
- Simple and automatic program download (ISP)

Low Cost

The LPC2468 OEM Board is very low cost and can be used for prototyping/development as well as for OEM production. Modifications for OEM applications can easily be done for volume customers. Contact Embedded Artists for further information about design and production services.