ARM7DIMM-LPC2478

Modular ARM7 Microprocessor Plug-In Module for Your Design

The ARM7DIMM-LPC2478 Module provides a quick and easy solution for implementing an ARM7TDMI-S design by providing the basic functions necessary for a product on an easy to use DIMM module. The DIMM module uses an industry standard 200 pin SO-DIMM interface. These sockets are utilized by virtually every laptop on the market.

This DIMM Module is compatible with FDI's Family of ARM Touch Screen LCD Kits but can also be used for custom platform development or customer applications.

The ARM7DIMM-LPC2478 Module includes an NXP ARM7TDMI-S LPC2478 microcontroller running the open source uEZ™ +FreeRTOS software platform. The LPC2478 has 512KB of internal Flash memory, 96KB of internal SRAM, a 10/100 Ethernet Media Access Controller (MAC), a USB full speed device/host/OTG controller, four UARTs, two CAN channels and a collection of serial communications interfaces. The ARM7DIMM-LPC2478 Module also includes 8MB of external SDRAM.

Highlights

- **ARM7DIMM – CPU Module based on SODIMM form factor (Dual Inline Memory Module)**
    - **LPC2478 72MHz ARM7TDMI-S microcontroller**
    - **512KB of Internal FLASH, 96KB of Internal SRAM**
    - **8MB of External SDRAM**
    - **1KB of External Secure EEPROM**
    - **10/100 Ethernet PHY**
    - **Mini-JTAG Debug Connector**

- **Software Included**
    - **FreeRTOS Operating System**
    - **uEZ™ Rapid Development Platform**
    - **Complete COM Drivers and APIs with documentation**

- **Supplied with easy-to-use application documents for all hardware and software**
- **Platform is based on a modular design for maximum flexibility**

ARM-TS-KIT Description

The ARM-57TS-LPC2478 is optimized to save development time in typical embedded control applications. The modular format uses a base Carrier Board, a core CPU DIMM Module and an LCD Carrier Board. The base Carrier Board includes expansion connectors for added flexibility and a range of configurations. FDI offers low cost customization services for customer specific hardware, software or packaging applications at volumes of 500 units or more.

Software Included

µEZ™ (pronounced Muse) is an open source rapid development platform that supplies application developers with an extensive library of open source software, drivers, and processor support - all under a common framework. EZ™ allows companies to focus on innovation and their value-added applications while minimizing development time and maximizing software reuse.

The diagram below shows a typical embedded application stack. The µEZ™ components comprise three primary categories to simplify embedded application development:

- Operating System Abstraction Layer (µEZ™ OSAL)
- Sub-system drivers (ex: µEZ™ TCP/IP, µEZ™ USB, µEZ™ Driver)
- Hardware Abstraction Layer (µEZ™ HAL)
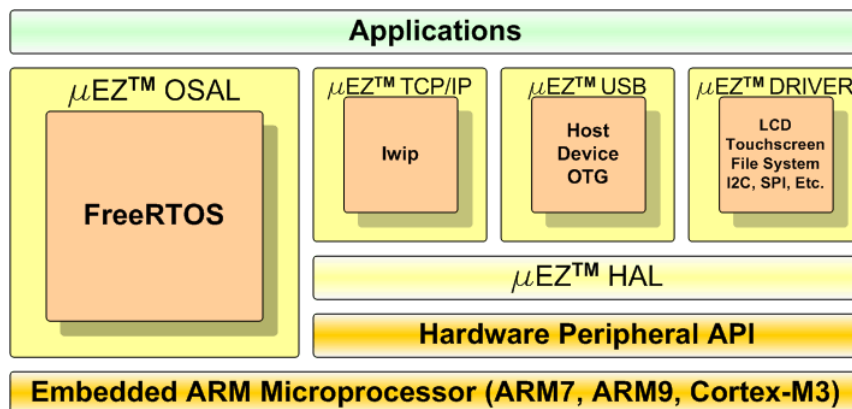
Ordering Information

Part Number: ARM7DIMM-LPC2478
Suggested Resale Price: $74.50 (USD)
Order Online at: www.digikey.com

Warranty: 30-day money back guarantee
NXP Part Number: OM11077
Phone 256-883-1240   Fax 256-883-1241
sales@teamfdi.com   www.teamfdi.com

Kit Contents:

- ARM7DIMM-LPC2478 Board

- uEZ™ Software and Users Manual Included

Download documents, schematics, and software examples at:

www.teamfdi.com/ARM7DIMM-LPC2478/index.html

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