

# SOMDIMM-LPC1788



## Modular LPC1788 based Microprocessor Plug-In System On Module



The SOMDIMM-LPC1788 provides a quick and easy solution for implementing an Cortex-M3 based design by providing the basic functions necessary for a product on an easy to use SOMDIMM. The SOMDIMM uses an industry standard 200 pin SO-DIMM interface. These sockets are utilized by virtually every laptop on the market.

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

The SOMDIMM-LPC1788 includes an NXP LPC1788 Cortex-M3 based microcontroller running the open source uEZ® + FreeRTOS software platform. The LPC1788 has 512KB of internal Flash memory, 96KB of internal SRAM, 4KB of internal EEPROM, 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 SOMDIMM-LPC1788 also includes 8MB of external SDRAM.

## Highlights

- **SOMDIMM – CPU Module**
  - Based on SODIMM form factor (Dual Inline Memory Module)
  - LPC1788 120MHz Cortex-M3 based microcontroller
  - 512KB of Internal FLASH, 96KB of Internal SRAM
  - 8MB of External SDRAM (16 and 32MB optional)
  - 1KB of External Secure EEPROM
  - 10/100 Ethernet PHY
  - Mini-JTAG and micro SDCard connectors
  - PCB Dimensions 2.66" x 1.89"
- **Software Included**
  - FreeRTOS Operating System
  - uEZ® Rapid Development Platform
  - Complete COM Drivers and APIs with documentation
- Includes on-line application documents for all hardware and software
- Platform is based on a modular design for maximum flexibility
- Distribution stocking with volume discounts available

# Features



## DK-TS-KIT Description

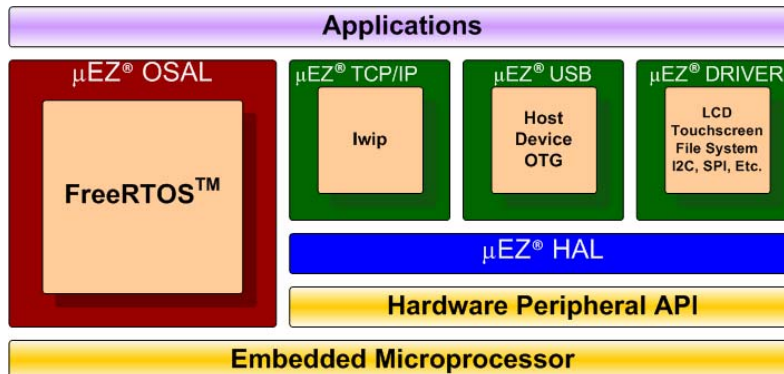
The DK-57VTS-LPC1788 is optimized to save development time in typical embedded control applications. The modular format uses a base Carrier Board, a core CPU SOMDIMM and an LCD Carrier Board. The base Carrier Board includes expansion connectors for added flexibility and a range of configurations. FDI offers low cost customization services for customer specific hardware, software or packaging applications at volumes of 500 units or more.

## Software Included

$\mu$ EZ<sup>®</sup> (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.  $\mu$ EZ<sup>™</sup> 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  $\mu$ EZ<sup>™</sup> components comprise three primary categories to simplify embedded application development:

- Operating System Abstraction Layer ( $\mu$ EZ<sup>®</sup> OSAL)
- Sub-system drivers (ex:  $\mu$ EZ<sup>®</sup> TCP/IP,  $\mu$ EZ<sup>®</sup> USB,  $\mu$ EZ<sup>™</sup> Driver)
- Hardware Abstraction Layer ( $\mu$ EZ<sup>®</sup> HAL)



## Ordering Information

Part Number: SOMDIMM-LPC1788  
Order Online at: [www.digikey.com](http://www.digikey.com)

Warranty: 30-day money back guarantee  
Phone 256-883-1240 Fax 256-883-1241  
[www.teamfdi.com](http://www.teamfdi.com)

### Kit Contents:

- SOMDIMM-LPC1788 Board
- $\mu$ EZ<sup>®</sup> Software pre-loaded on units purchased individually but not on OEM units

Download Users Manual, documents, schematics, and software examples at:

[www.teamfdi.com/SOMDIMM-LPC1788](http://www.teamfdi.com/SOMDIMM-LPC1788)

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