

5.7" VGA Touch Screen LCD Kit



DK-57VTS-LPC1788
For the NXP LPC1788



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, 4KB of Internal EEPROM 8MB of External SDRAM
 - 10/100 Ethernet PHY
 - Mini-JTAG Debug Connector
- **CARRIER – Generic Carrier Board for CPU and LCD Modules**
 - 200-pin SOMDIMM Socket, supporting various processor modules
 - 10/100 Ethernet Port, USB Host and Device ports
 - One CAN port (Male DB9), One RS-232 port (Male DB9), External I2C interface
 - 3-axis Digital Accelerometer & Temperature Sensor
 - Real-time Clock with SuperCap backup
 - TFT interface for Graphics LCD displays up to 1024x768 resolution, 18-bit color
 - Flexible Power Supply input can be wall supply or 5V USB
- **LCD CARRIER**
 - 5.7" VGA Display (640 x 480) with Touch Screen Interface
 - Optional 3.5" QVGA board, up to 10.4" XGA Board
- **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**
- **Additional CPU DIMM and LCD Carrier boards under development**

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.



SOMDIMM-LPC1788 Description

The SOMDIMM-LPC1788 includes an NXP LPC1788 Cortex-M3 based microcontroller running the open source μ EZ[®] +FreeRTOS software platform. The LPC1788 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 SOMDIMM-LPC1788 also includes 8MB of external SDRAM.

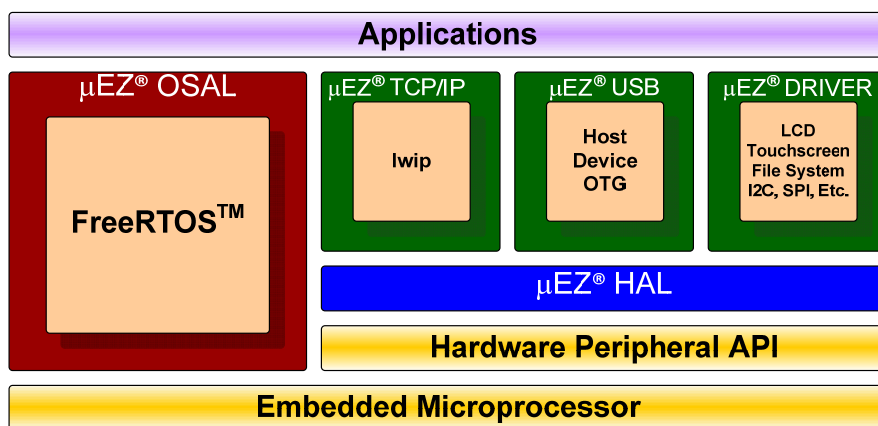
Actual PCB dimensions are 2.66" x 1.89"

Software Included

μ EZ[™] (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. μ 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 μ EZ[™] components comprise three primary categories to simplify embedded application development:

- Operating System Abstraction Layer (μ EZ[®] OSAL)
- Sub-system drivers (ex: μ EZ[®] TCP/IP, μ EZ[™] USB, μ EZ[®] Driver)
- Hardware Abstraction Layer (μ EZ[®] HAL)



Ordering Information

Part Number: DK-57VTS-LPC1788
NXP Part Number: OM11xxx
Order Online at: www.digikey.com

Warranty: 30-day money back guarantee
Phone 256-883-1240 Fax 256-883-1241
www.teamfdi.com

Kit Contents:

- SOMDIMM-LPC1788 Board
- CARRIER Board
- LCD CARRIER Board & 5.7" VGA LCD Touch Screen
- 5VDC, 2.3A North American Power Supply
- USB and Ethernet Cables
- Segger JTAG Debugger with cables

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

FDI *Future Designs, Inc.*
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