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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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
- **LCDCARRIER**
  - 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.

# Features



## SOMDIMM-LPC1788 Description

The SOMDIMM-LPC1788 includes an NXP LPC1788 Cortex-M3 based microcontroller running the open source  $\mu$ EZ<sup>®</sup> +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.

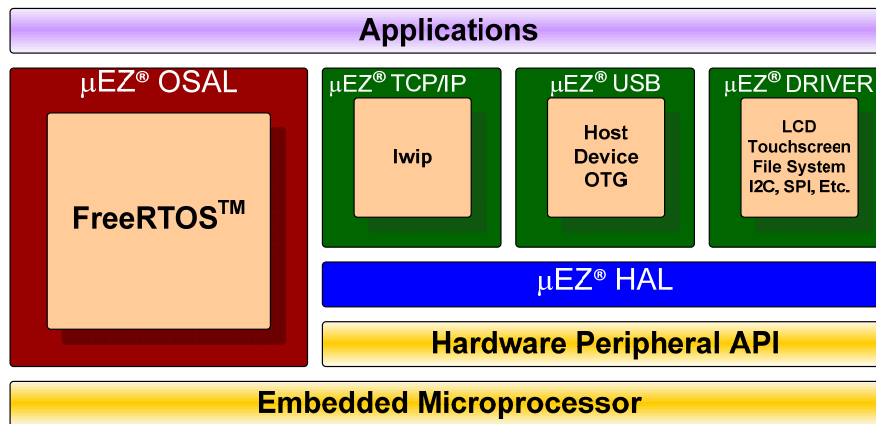
Actual PCB dimensions are 2.66" x 1.89"

## Software Included

$\mu$ 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: DK-57VTS-LPC1788  
NXP Part Number: OM11xxx  
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
- CARRIER Board
- LCDCARRIER 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.*  
Your Development Partner