5.7” VGA Touch Screen LCD Kit

DK-57VTS-LPC2478
For the NXP LPC2478

Highlights

- SOMDIMM – CPU Module based on SODIMM form factor (Dual Inline Memory Module)
  - LPC2478 72MHz ARM7TDMI-S based microcontroller
  - 512KB of Internal FLASH, 96KB of Internal SRAM, 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-LPC2478 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-LPC2478 Description**

The SOMDIMM-LPC2478 includes an NXP LPC2478 ARM7TDMI-S based 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 SOMDIMM-LPC2478 also includes 8MB of external SDRAM.

Actual PCB dimensions are 2.66” x 1.89”

**Software Included**

uEZ® (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. uEZ® 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 uEZ® components comprise three primary categories to simplify embedded application development:

- Operating System Abstraction Layer (uEZ® OSAL)
- Sub-system drivers (ex: uEZ® TCP/IP, uEZ® USB, uEZ® Driver)
- Hardware Abstraction Layer (uEZ® HAL)

**Ordering Information**

**Part Number:** DK-57VTS-LPC2478  
**NXP Part Number:** OM11xxx  
**Suggested Resale Price:** $460.00(USD)  
**Order Online at:**  
  - www.digikey.com  
  - www.mouser.com  

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

**Kit Contents:**
- SOMDIMM-LPC2478 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:

www.teamfdi.com/SOMDIMM-LPC2478