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.

Actual PCB dimensions are 2.66" x 1.89"

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.
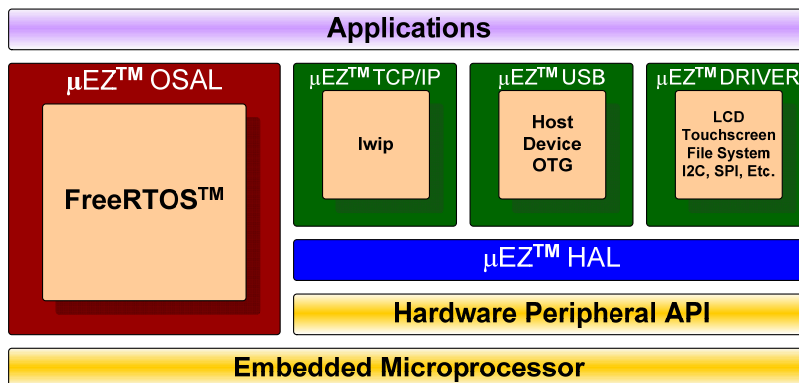
Software Included

 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. μEZ™ 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)

Applications			
μEZ™ OSAL **FreeRTOS™**	**μEZ™ TCP/IP** lwip	**μEZ™ USB** Host Device OTG	**μEZ™ DRIVER** LCD Touchscreen File System I2C, SPI, Etc.
	μEZ™ HAL		
	Hardware Peripheral API		
Embedded Microprocessor			

Ordering Information

Part Number: DK-57VTS-LPC2478
NXP Part Number: OM11xxx
Suggested Resale Price: $460.00(USD)
Order Online at: 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

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