

# IRD 2.0 Touch Screen Platform

## Kit Overview

- ▶ Developed in partnership with FDI
  - HW & SW integration partner of NXP
- ▶ IDE environment: Rowley Associates
  - CrossWorks V1.7, 30 Day Free Trial
- ▶ Real Time Operating System:
  - FreeRTOS
- ▶ Middleware Components:
  - Ethernet: lwIP
  - USB Host: NXP Host Stack
  - Middleware wrapper: FDI uEZ™
- ▶ All Software available on Source-Forge
  - <http://www.sourceforge.net/projects/uez>



μEZ™



# DK-57TS-LPC2478

## TOUCH SCREEN LCD KIT

### ▶ LPC2478 System On Module DIMM

- NXP LPC2478 Microcontroller
- 8MB External SDRAM
- 10/100 Micrel Ethernet PHY
- Micro SD, Mini JTAG & ISP

### ▶ CARRIER

- USB Host & Device Ports
- 10/100 Ethernet Port
- CAN and RS-232 Ports
- I2C & I2S Exp Connectors
- RTC with SuperCap backup
- 3-axis Acc & Temp Sensor

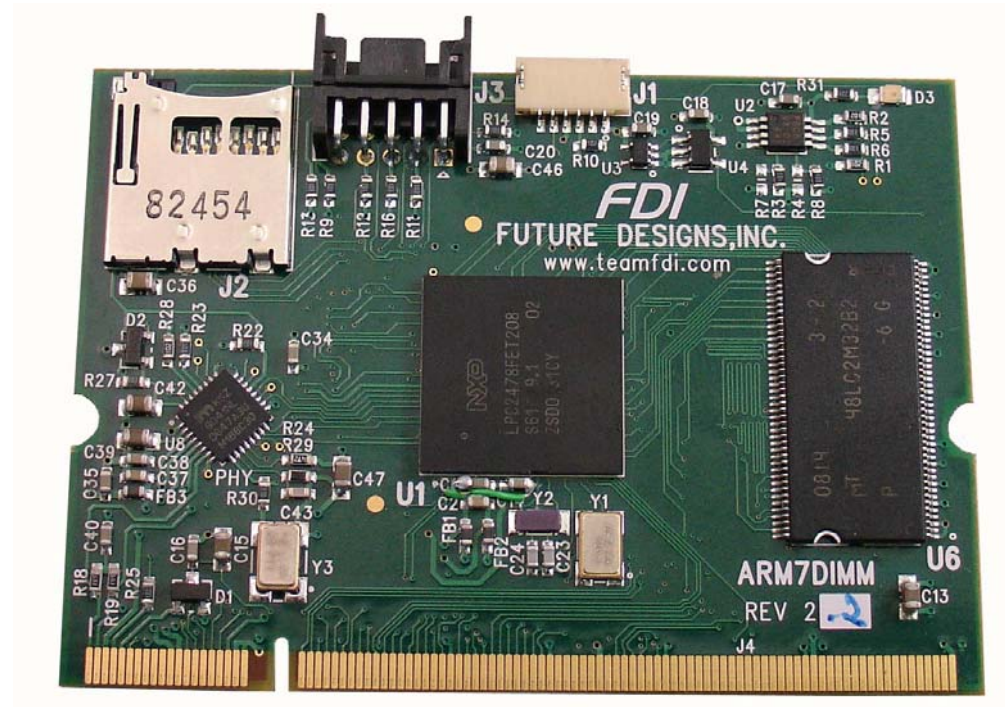
### ▶ LCD CARRIER

- 3.5 or 5.7" QVGA/VGA TFT LCD
- 4-Wire Resistive Touch Screen



# IRD 2.0

## SOMDIMM-LPC2478 Overview

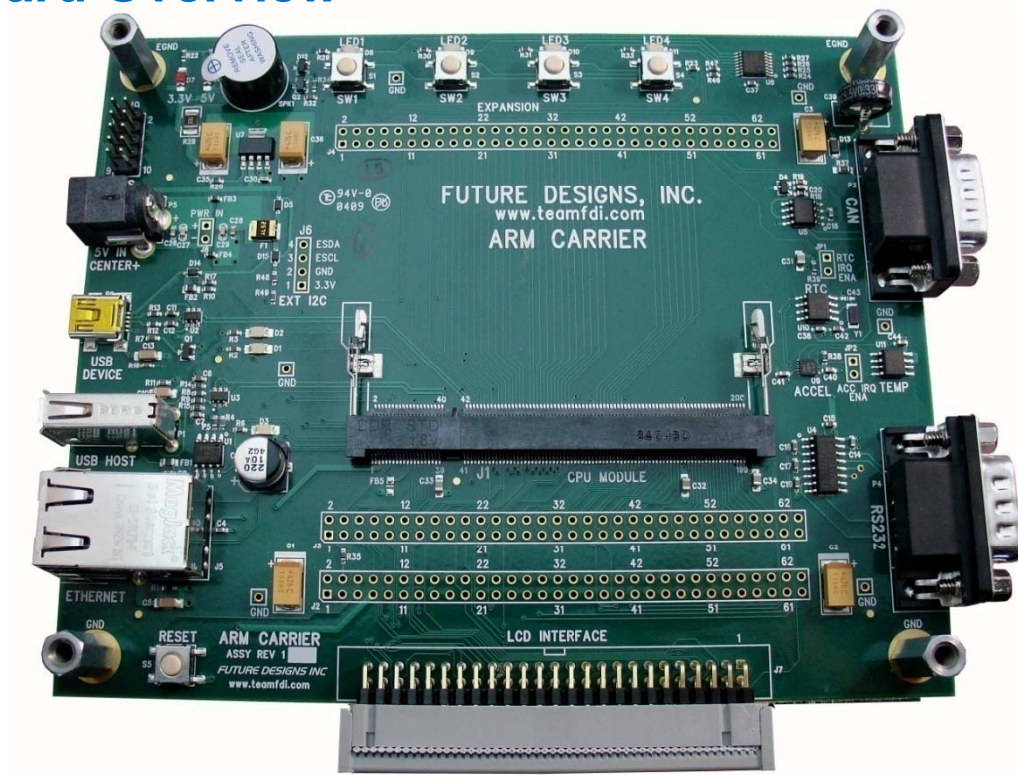


PCB dimensions: 2.66" x 1.89"



# DK-57TS-LPC2478

## CARRIER Board Overview



# IRD LPC2478 V2.0 Platform Offering

## Price & Availability

LPC2478 IRD 2.0 Development Kit **FDI P/N:**

**DK-57TS-LPC2478**

**NXP P/N: OM11076**

**Resale Price \$425.00**

**LPC2478 SOC DIMM Modules**

**FDI P/N: SOMDIMM-LPC2478**

**NXP P/N: OM11077**

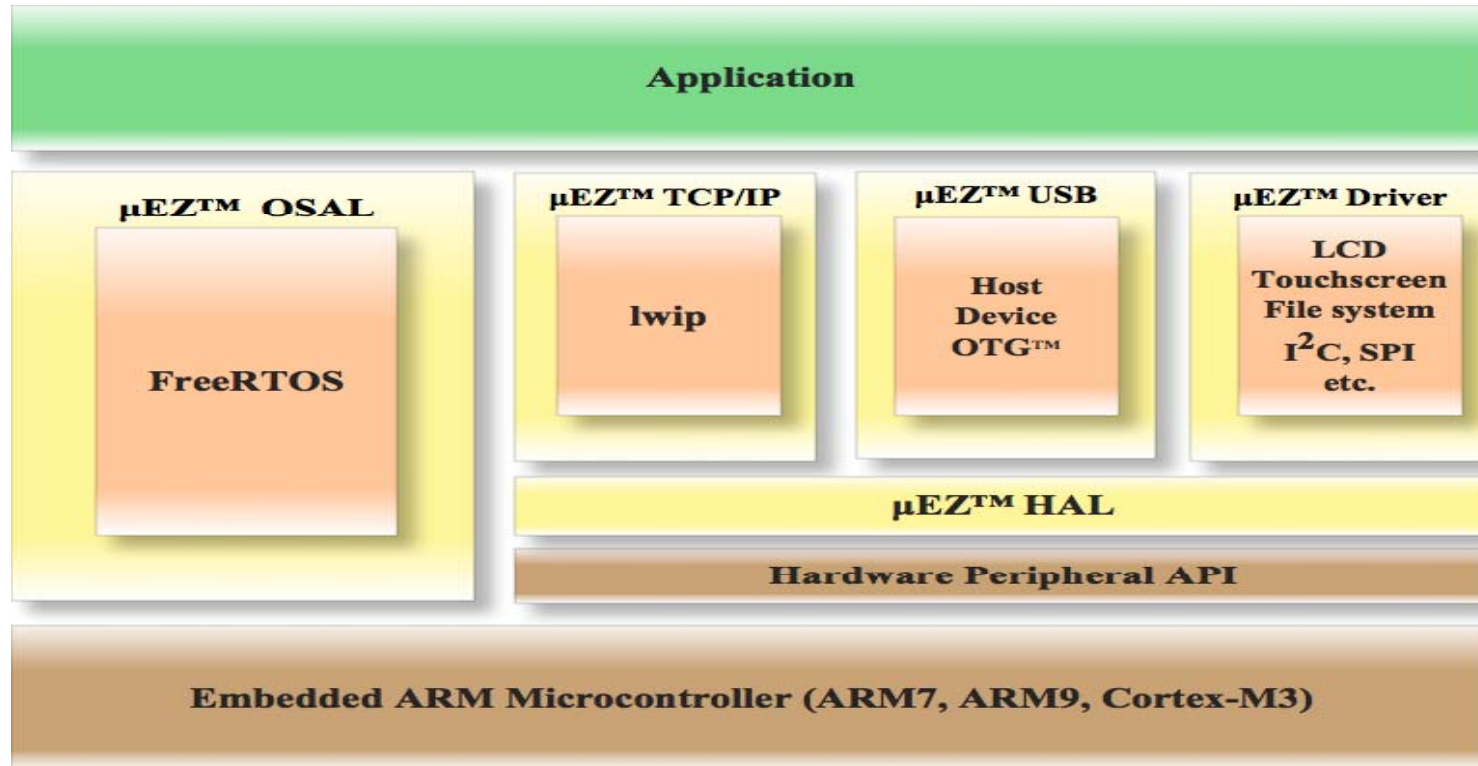
**Resale Price \$74.50**

**Available from Distribution Stock**





# What is $\mu$ EZ™



# μEZ™

## Components

- ▶ Has three primary components:
  - Operating System Access Layer (OSAL)
  - Sub-system Drivers
  - Hardware Abstraction Layer (HAL)
- ▶ Providing:
  - Cross Processor and Cross Platform Portability
  - RTOS Independence
  - Hardware and Device Driver Abstraction
  - Library of Reusable Code – stop reinventing the wheel!
  - Rapid Application Development
  - Standardized interfaces across similar drivers
  - Open Source
- ▶ Customizable by the customer, by FDI, Open Source community



# LPC2478 Microcontroller

## *LCD Control Enabled MCU*

### ► Features

- Embedded LCD STN/TFT graphics controller
- Internal 512KB Flash and 96KB RAM
- Two USB 2.0 FS OTG/Device/OHCI ports
- One 10/100 Ethernet MAC with DMA & MII/RMII interface
- External Memory Controller with interface for SDRAM & Flash
- Multiple serial interfaces: 4 UARTS, 3 I2C, I2S, SSP/SPI
- RTC with battery backup RAM
- 2 CAN channels

### ► Benefits

- Highly integrated functionality- lower component count
- Flexible LCD controller - allows easy migration to different displays
- Industry standard ARM7TDMI-S core – vast amounts of code for ARM7 core and many 3<sup>rd</sup> party tools vendors.

