SOMDIMM-LPC3250



Modular LPC3250 based Microprocessor Plug-In System On Module



The SOMDIMM-LPC3250 provides a quick and easy solution for implementing an ARM926EJ-S based design by providing the basic functions necessary for a product on an easy to use SOMDIMM. The SOMDIMM uses an industry standard 200 pin SO-DIMM interface. These sockets are utilized by virtually every laptop on the market.

This SOMDIMM is compatible with FDI's Family of Touch Screen LCD Kits but can also be used for custom platform development or customer applications.

The SOMDIMM-LPC3250 includes an NXP LPC3250 ARM926EJ-S based microcontroller running the open source Linux software platform. The LPC3250 has 256KB of internal SRAM, a 10/100 Ethernet Media Access Controller (MAC), a USB full speed device/host/OTG controller, seven UARTs, and a collection of serial communications interfaces. The SOMDIMM-LPC3250 also includes 64MB* of external DDR SDRAM and 512MB* of external NAND FLASH.

Highlights

- SOMDIMM CPU Module
 - Based on SODIMM form factor (Dual Inline Memory Module)
 - LPC3250 266MHz ARM926EJ-S based core
 - Vector Floating Point Co-processor
 - 256KB of Internal SRAM
 - o 64MB* of External DDR SDRAM * (128MB optional)
 - o 512MB* of External NAND FLASH
 - o 1KB of External Secure EEPROM
 - o 10/100 Ethernet PHY
 - Mini-JTAG and microSD Card connectors
 - o PCB Dimensions 2.66" x 1.89"
- Software Included
 - Linux Operating System
 - VMWare Development Virtual Machine Image
 - Linux Drivers support: LCD frame buffer, Touch Screen, NAND-Flash, SDRAM, MMC, USB, I2C, SPI, DMA, Ethernet, RS232, and RTC.
- Includes on-line application documents for all hardware and software
- Platform is based on a modular design for maximum flexibility
- Distribution stocking with volume discounts available

Features



DK-TS-KIT Description

32MX16 DDR

SDRAM

VFBGA60

(64Mx16 OPT)

SDRAM

20 12C

KSZ8041

ETH PHY

ISP1301

USB

OTG

PHY

RMI

USB

ATX

10/100 ETHERNET

USB H

OR

USB D

The DK-57VTS-LPC3250 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.

4G

NAND FLASH

TSOP48

NAND

SPI

SOMDIMM Block Diagram

LPC3250

ARM926EJ-S based

Microprocesso

1KX8

SECURE

EEPRON

20 13

SCR 16-BIT JART2,3,4,5,

FOUCH

Ē

SPEAKER

UART5 SERVICE.

MINI

JTAG

JTAG

HICORE

DEBUG

SERIAL

CONN

1.8\

1.2V

0.91

1.35V

VCORE

PS

uSD

Socket

MMC

Software Included:

Linux Board Support Package

- Linux Operating System
- Bootloader (both primary boot loader and u-boot bootloader)
- VMWare Development Virtual Machine Image

Linux Drivers support:

- LCD frame buffer
- Touch Screen
- NAND-Flash, SDRAM, MMC
- USB, SPI, DMA, Ethernet, RS232, I2C, RTC,

Ordering Information

Part Number: SOMDIMM-LPC3250 NXP Part Number: OM11079

Volume Pricing Available Order Online at: www.digikey.com

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

* Rev 2 Boards and later

Kit Contents:

SOMDIMM-LPC3250 Board

GPIO UART1

Linux Software pre-loaded on units purchased individually but not on OEM units

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

www.teamfdi.com/SOMDIMM-LPC3250



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