

LDK5912 & LDK5910 FAMILY OF DEVELOPMENT KITS

RUNNING LEOs®



SIMPLICITY, SCALABILITY AND VERSATILITY

Working alongside Texas Instruments™ (TI), Empower Technologies™ has developed LEOs® (LinuxDA Embedded Operating System) configured for TI's family of OMAP microprocessors: OMAP 5910 and OMAP 5912. The versatility of LEOs and the power of OMAP initiate a new level of performance expectations for intelligent devices; its increased headroom for applications and expansion capabilities efficiently suit the needs of developers, manufacturers and consumers. Based on the open-source Linux kernel, LEOs® is a powerful suite of Linux operating system software from Empower Technologies that fulfills the needs of developers and the dynamic consumer electronics industry; it is truly a proven solution for intelligent consumer electronic devices.

FEATURES OF LEOs:

- » System-on-chip (SoC) drives applications requiring high performance real time signal processing at low power consumption.
- » Powers personal data terminal (PDT) devices with communication (wired/wireless), real-time data and/or multimedia capabilities.
- » The LDK5912 priced at \$1800 USD and LDK5910 priced at \$1200 USD run LEOs®, the OMAP591x dual processors and an evaluation module which affords a new level of cost efficiency for developing LEOs-based applications.

No licensing fees exist until applications are ready for commercial release.

The LDK591x (LEOs® Development Kits) were developed to showcase the combined power of LEOs® and OMAP 591x; they run LEOs® out of the box and can be leveraged by device developers as a powerful design reference to significantly reduce device development time and cost. LDK591x are the only development kits to offer LEOs® running Linux kernel 2.4 (LDK5910) and 2.6 (LDK5912) along with TI's DSPLink for OMAP591x. Within minutes after setting up, LDK591x developers can compile, download and test applications. In the months that follow, developers can alter the LDK591x hardware design while developing any application specific code. A large variety of applications and productivity functions are available with LEOs®. Leveraging these applications and the rapid deployment support within LEOs® can significantly reduce the software development effort required for any device.

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LDK5912
LinuxDA Development Kit

BASED ON LINUX 2.6 KERNEL

AND

LDK5910
LinuxDA Development Kit

BASED ON LINUX 2.4 KERNEL



THE LDK5912 & LDK5910 DEVELOPMENT KITS ARE COMPRISED OF:

Embedded Processor Module (EPM)

- » OMAP591x microprocessor with ARM92xx and C55x DSP core
- » 32MB Mobile SDRAM Memory
- » 32MB Strata Flash Memory
- » SD Memory Card Slot
- » Power and Battery Management Controller
- » JTAG Connector and Interface Logic
- » Momentary, Single Pole, Reset Button
- » 1800mAh Li-Polymer Battery

LAN and Expansion Module (LEM)

- » Low Power 10Mb Ethernet Interface with RJ-45 Connect
- » Voltage Indication Points
- » JTAG and Multi-ICE Connectors
- » Exposed bus for Custom Add-On boards or HP Logic Analyzer Connection
- » Power Supply Status LEDs

Interface Display Module (IDM)

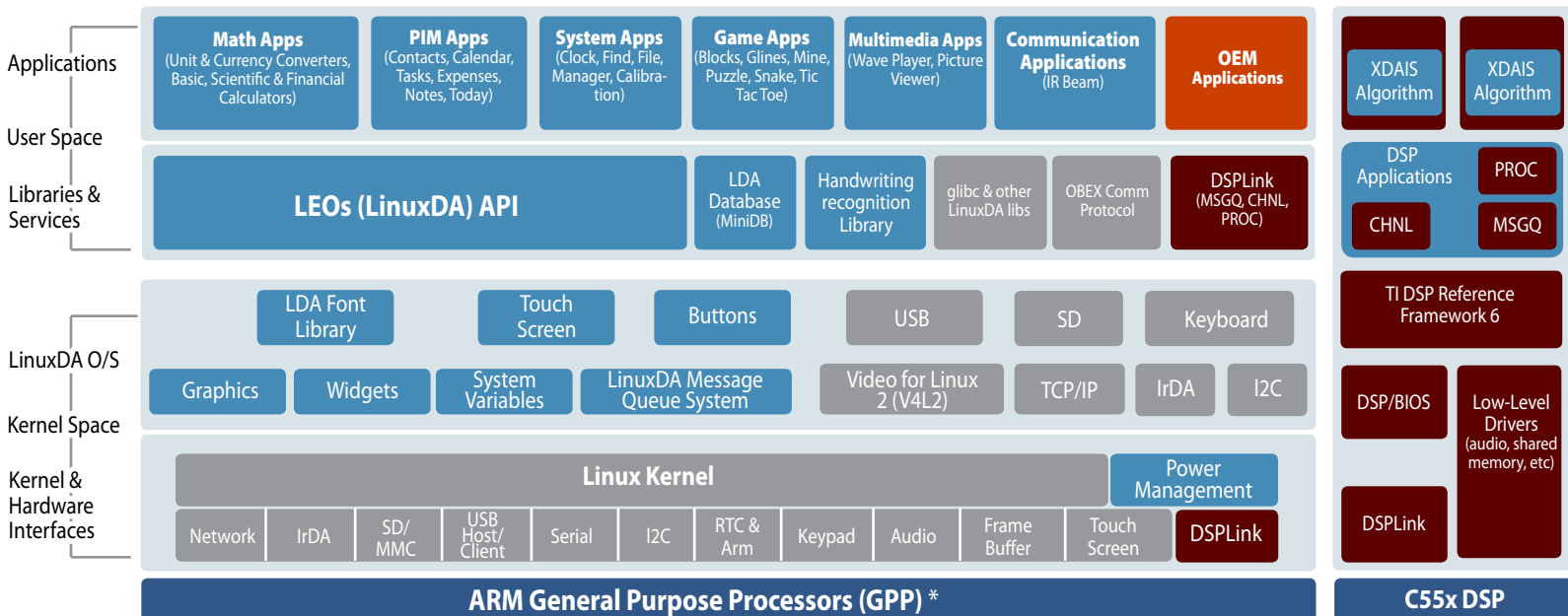
- » 3.5" Diagonal QVGA (240x320) TFT LCD with LED Frontlight and Integrated Touchscreen supporting 65k colors
- » 4 Momentary, Single Pole, User Defined Buttons
- » 5-Pole Navigation Switch
- » Momentary, Single Pole, Sleep/Wake Button
- » AIC23 Codec with I2S connection to two mono speakers and the following audio connectors: Stereo Headphone jack, Head set jack, Stereo Audio line-in jack
- » USB Host (USB 1.1 at 11Mbps) on Mini Type A Connector
- » USB Client (USB 1.1 at 11Mbps) on Mini Type B Connector
- » Dual RS-232-Level Serial Ports (Full Handshaking and 4-wire)
- » Serial IrDA (SIR) Interface
- » CMOS Camera Interface with buffered 8-bit data and I2C control (camera accessory not included)

* Note: peripheral support mentioned above is provided directly from the OMAP591x processor that is used on the LDK591x (where available).

LEOs® IS COMPRISED OF :

- » Linux 2.6 Kernel (LDK5912)
- » Linux 2.4 Kernel (LDK5910)
- » The following support is offered for both LDK5912 and LDK5910:
 - Drivers for the LDK591x peripheral set mentioned above
 - Hardware power management
 - TI DSP/BIOS Link Support
- » LEOs Message Queue System with support for the LEOs proprietary GUI.
- » Software development tools (including DSP/BIOS Link support)
- » Software applications including:
 - Productivity software such as Contacts, Calendar and Task Managers, Soft Keypad, Currency, Notes, Today, Unit and Handwriting Recognition
 - System applications such as Clock, Math, Scientific and Financial Calculators, Touch Calibrate, Records Find, File Manager, Welcome Screen and SD Tool
 - Multimedia applications such as Wave Player, Paint and Games: Blocks, Glines, Mine, Puzzle, Snake and Tic Tac Toe

LEOs® FOR TI OMAP 591x



* ARM 925T for LDK5910 and ARM 926EJ-S for LDK5912

- Empower Technologies
- Texas Instruments
- OEM & 3rd Party
- Open Source

www.empowertechnologies.com

#405 - 5600 Parkwood Way, Crestwood Commerce Centre, Richmond BC, Canada V6V 2M2 Tel:604.278.3100 Fax: 604.278.3102

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