

Empower Development Kit 6446



# DATASHEET

## EDK6446

### High Performance TI DaVinci-Based Dual Core ARM9 + C64x DSP

Empower Development Kit 6446 comes with the latest Empower Technologies' Linux Embedded OS (LEOs) for DM6446 operating software. The target hardware development platform includes a DaVinci-DM6446 SBC board with a TI TMS320DM6446 processor and an optional 4.3" WQVGA (480x272) landscape TFT LCD touch panel, ready for 16:9 widescreen movie presentations.

EDK6446 and LEOs for DM6446 product family are made specifically for media devices in the mobile, set-top-box, and telematic applications. The video processing power enabled by the video/imaging coprocessor and the C64x+ DSP core in the DM6446 is the most powerful feature of this new development platform. It provides major technical advantages in video/image/audio encoding/decoding, video analysis, image processing and sound processing. These technical advantages can be applied in the fields of networked IP security surveillance systems, wired/wireless networked digital media streaming systems, automobile infotainment systems, portable navigation multimedia devices, and videophones.

LEOs for EDK6446 will allow you to more easily and quickly develop digital media applications. Application code can be written, with easy access via LEOS APIs to the C64x+ DSP core. No detailed DSP knowledge is required to access DSP functions.

#### HARDWARE FEATURES

Development board with the Texas Instruments DM6446 processor; which includes an ARM processor running at 297MHz, and a C64x+ DSP core running up to 594MHz

- 256MB of DDR2 DRAM
- 32MB NOR Flash, 256MB NAND Flash
- 1 composite video input port
- 1 composite video output port
- Microphone interface
- Stereo Speaker interface
- Stereo Audio Line-in and Stereo Audio line-out interface
- 10/100 Mbps Ethernet
- 4 UART ports (1 RS-232, 3 Rx/Tx)
- USB 2.0 host with mini-AB connector
- Media Card Interface (SD slot)
- I<sup>2</sup>C\* Interface
- 2 x analog to digital converter inputs
- Rechargeable battery connector
- One reset button and one sleep/wake button
- Single +5V power supply
- JTAG interface
- PCB dimensions: 130mm x 80mm (5.12" x 3.15")
- Outside dimensions (L x W x H):
- 133.0mm x 89.6mm x 21.5mm (5.24" x 3.53" x 0.85")

#### 4.3"TFT LCD DISPLAY FEATURES: (DDM)

- Wide operating temperature range
- 480x 272 resolutions a widescreen view (16:9 aspect ratio)
- High brightness
- Wide viewing angle
- Integrated touch panel

#### 3Megapixel DIGITAL CAMERA (Option)

#### **SOFTWARE FEATURES**

- Linux 2.6 Kernel
- Device Drivers:
  - 4.3"TFT LCD display driver (optional)
  - Touch screen driver(optional)
  - Frame buffer driver(optional)
  - SD/SDHC card driver (up to 8GB capacity) and other device drivers
- Optional DSP codec(s) are available
- Uboot boot-loader

#### EDK6446 PACKAGE CONTENTS INCLUDE

- LEOs for EDK6446 operating software pre-loaded on the NOR flash
- CD including LEOs for EDK6446 operating software
- SBC6446 Single Board Computer (SBC)
- Technical Reference Manual
- Quick Start Guide
- End User License Agreement

\* I<sup>2</sup>C is a register trademark of Philips Corporation

#### Contact Information

sales@empowertechnologies.com www.empowertechnologies.com

#### **Corporate Headquarter**

#405 - 5600 Parkwood Way Crestwood Commerce Centre Richmond, BC, Canada V6V 2M2 Tel: 1.604.278.3100 Fax: 1.604.278.3102



© 2008 Empower Technologies, Inc. or its subsidiaries. All rights reserved. The registered trademark Linux <sup>®</sup> is used pursuant to a license from the Linux Mark Institute, the exclusive license of Linus Torvalds, owner of the mark on a world-wide basis. LEOs and PowerPlay are trademarks of Empower Technologies, Inc. OMAP is a registered trademark of Texas Instruments. All other trademarks are the property of their respective owners.