

# LMLSBC2641

Low-Power H.264 / AVC VGA 30fps Video Codec  
AAC 2-channel Audio Codec

## Features and Benefits

### System

- Self-contained complete MG1264 H.264/AAC stand-alone platform
- 180MHz ARM920T Host CPU
  - AT91RM9200 (Atmel)
- Linux 2.6 OS
- Complete software tool chain including
  - GCC compiler with support for C and C++
  - GDB debugger
  - Binutils (assembler and ELF tools for ARM)
  - DeJagnum, uClibc, libstdc++, dropbear, MTD
- Two debug UARTs
  - ARM9
  - MG1264
- Integrated web server
  - Run interactive encoding sessions using a web server and browser
- Capture H.264 / AAC bitstreams directly to local SD card. Support for:
  - Elementary streams
  - MP4 format
- Sample RTP/RTSP IP streaming application
  - based on Livemedias
- Schematics, MG1264 firmware APIs, documentation, user manual

### Input / Output

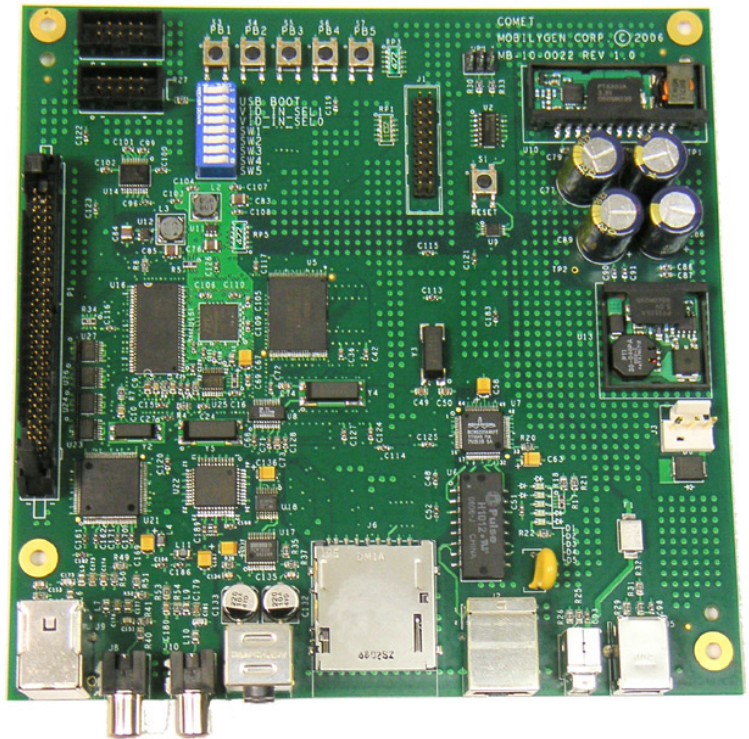
- Video I/O
  - Y/C in/out
  - Composite in/out
- Audio I/O
  - Mini-RCA in/out
- SD Card
- Ethernet (RJ45)
- USB Host (A)
- USB Device (B)
- 50-pin I/O custom expander header
  - MG1264 = BT656, I<sup>2</sup>S
  - ARM9 CPU = I<sup>2</sup>C, SPI, UART(x2), IRQ
  - Power and ground

### Physical

- Small board size (6.7-in x 6.7)
- Mini-ITX form factor case (7-in x 10-in)
- 12V DC power brick included
- Status LEDs and onboard control buttons

## Overview

### Board



### Description

LMLSBC2641 is a stand-alone single board computer platform for the Mobilygen MG1264 low-power H.264/AAC codec. It includes a 180MHz ARM920T Host CPU and Linux 2.6 OS capable of running demanding real-world applications. A complete software development tool chain including compiler, debugger, utilities, and libraries, is pre-configured and source code provided.

LMLSBC2641 includes standard 50-pin I/O expander header to enable system prototype activities. All common MG1264 A/V and ARM general I/O signals are available. Custom daughter cards can be integrated easily to develop and test complete system functionality.

The Mobilygen MG1264 codec chip is designed for low-power mobile devices such as Digital Still Cameras (DSC), Solid-State Camcorders, and streaming IP security cameras. MG1264 consumes less than 185mW while encoding high-quality Baseline Profile VGA 30fps H.264/AVC video and high-fidelity 2-ch AAC audio. This breakthrough performance and low-power consumption is the benefit of Mobilygen's patented EVE (Enabling Video Everywhere) architecture.