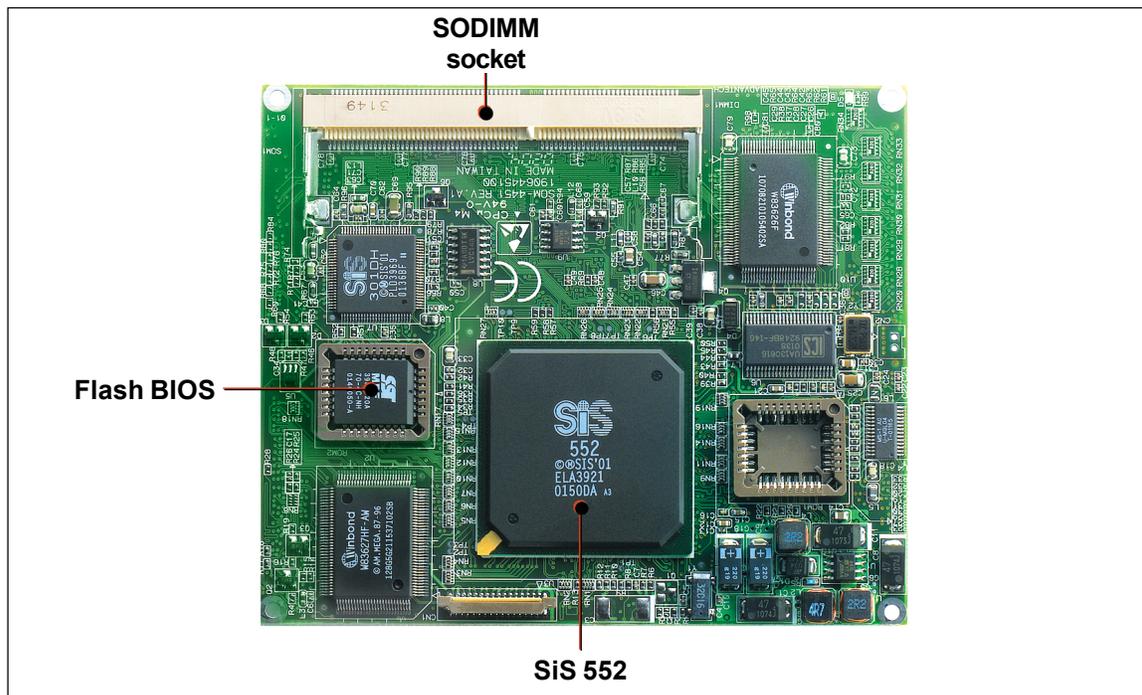


SOM-4451

SiS SOM-ETX Module with CPU, Audio, VGA/LCD, LVDS and Ethernet



Introduction

Advantech's new SOM-4451 is a SOM-ETX CPU module board with an on-board, embedded low power 200 MHz SiS 552 processor. Other on-board features include a VGA/LCD controller with 18-bit LCD TFT display and 10/100 Mbps PCI Ethernet interface. A SOM-ETX is provided, with PCI/ISA/Audio/VGA&LCD and also optional SSD support for DOC. 62-level watchdog timer and jumperless on-line setup is also supported.

SOM-ETX with SiS 552 Processor Available Now

With this board, system engineers will now be able to upgrade their 486-based systems to 586 level without worries, because a pentium level SiS 552 processor is mounted directly on board. Mounting CPUs directly on board eases the configuration and installation process because there is no need to set any jumpers for speed or voltage differences between various CPUs. In addition to ease of configuration, the SiS 552 200 MHz low-power CPU has been specially designed to work well in environments with temperatures of up to 60°C without need of a fan. Eliminating the CPU fan from a system significantly reduces MTBF worries and increases application possibilities.

True multimedia SOM-ETX SOM-4451 integrates Ultra-AGP technology to deliver high performance GUI-memory bandwidth. Furthermore, SiS552 provides powerful slice layer decoding DVD accelerator to improve the DVD playback performance. In addition to providing the standard interface for CRT monitors, SOM-4451 also provides a Digital Flat Panel Port (DFP), and also supports NTSC/PAL Video Output. SOM-4451 also adopts Share System Memory Architecture that can flexibly utilize the frame buffer size up to 128MB.

Features

- On-board 200 MHz SiS 552 processor (fanless)
- On-board VGA/LCD display controller and 18-bit LCD TFT display
- 62-level watchdog timer, jumperless on-line setup supported
- Supports wake on LAN, wake on ring (modem)
- SSD support for DOC TSOP1 (optional)
- Supports CMOS data backup functions

Specifications

- **CPU:** Embedded low power SiS 552 200 MHz processor (provides fanless operation)
- **BIOS:** Award 256KB Flash memory
- **Chipset:** SiS 552 (on-chip)
- **System memory:** One SDRAM SODIMM socket, max up to 512 MB
- **Enhanced IDE interface:** One Enhanced IDE interface that supports 2 IDE devices PIO mode 3,4 UDMA33 transfer.
- **FDD interface:** Supports up to two FDDs (360 KB/1.2 MB/720 KB/1.44 MB/2.88 MB) and shared with Parallel port.
- **Parallel port:** One parallel port, supports EPP/ECP
- **IR port:** One 115 kbps IrDA compliant serial infrared
- **Serial ports:** 2 serial RS-232 ports.
- **Keyboard/mouse connector:** Supports standard PC/AT keyboard and a PS/2 mouse.
- **USB:** Two universal serial bus ports.
- **Power management:** Supports power saving modes including Normal/Standby/Suspend modes. APM 1.2 compliant.
- **Watchdog timer:** 62-level timer interval

SVGA/Flat Panel Interface

- **Chipset:** SiS-552
- **Frame buffer:** Supports 32/64MB frame buffer with system memory.
- **Interface:** Ultra-AGP for Hardware 2D/Video/Graphics Accelerators, supports 18-bit TFT LCD interface.
- **Display modes:**
Non-interlaced CRT monitor up to 1024 x 768@16bpp(60Hz);
LCD/Simultaneous modes: 1024x768@16bpp(60Hz)
- **TV-out(optional)**
Chipset: SiS301. Supports NTSC, NTSC-EIA (Japan) and PAL TV formats

Ethernet Interface

- RealTek™ RTL 8139
-Ethernet interface: IEEE 802.3u 100BASE-T Fast Ethernet compatible
-Built-in boot ROM

Audio Function

- **Chipset:** SiS552
- **Audio controller:** AC97 ver. 2.0 compliant interface

Mechanical and Environmental

- **Dimensions(LxW):** SOM-ETX form factor, 95X114mm(3.7"x4.5")
- **Power supply voltage:** +5V+/-5%
- **Power requirements:**
Max: 2.5A@+5V
Typical: 1.92A@ +5V (with 128MB DRAM)
- **Operating temperature:** 0 ~ 60°C (32 ~ 140°F)
- **Weight:** 0.27 Kg (0.59 lbs)

Ordering Information

- ☐ **SOM-4451F-D0A1:**
SOM-ETX CPU Module W/SiS552 CPU, VGA/LCD, Ethernet and Audio
- ☐ **SOM-4451FL-D0A1**
SOM-ETX CPU Module W/SiS552 CPU, VGA/LVDS, Ethernet and Audio
- ☐ **SOM-DB4400:**
Development Board for SOM-ETX
- ☐ **SOM-DK4451F-C01:**
Windows CE 3.0 Development Kit for SOM-4451F