Product Info - SiSM672

The Integrated Mirage™3+ DX 9 Graphics Chipset for Intel® Pentium® 4

Overview

The SiSM672, supporting Intel® Core™2 Duo, Pentium® D, and Pentium® 4 series processors, features a PCI Express x16 Bridge, flexible Single-Channel DDR2-667 Memory controller, Mirage™ 3+ graphic engine, and SiS MuTIOL® Technology, which connects with the SiS968 MuTIOL® Media I/O.

The advanced Mirage™3+ graphics engine, combining with Pixel Shader 2.0, Texture Pipelines, Texture Filtering and Cubic Mapping technologies, enables the SiSM672 integrated chipsets to deliver excellent graphics performances under 2D and 3D conditions. With support of SiS Real Video Technology, the image quality and definition of digital entertainment devices, such as TV, VCD, and DVD can be presented perfectly and thoroughly under Windows Vista™ Premium Edition.

Pairing with the SiSM672 Northbridge chipset, the SiS968 Southbridge chipset has several unique features. It has been designed to focus on reducing the power-consumption. Therefore, it is able to actively adjust the power consumption of peripheral. With such an advanced technology, the SiS968 Southbridge chipset can save up to 50% of power for the system. Besides, the SiS968 Southbridge chipset is integrated with SiS proprietary MuTIOL® 1G technology to connect with the SiSM672 speedily. It supports 2 PCI Express interfaces, and 2 SATA 3G ports which allows up to 300MB/s of data transmission. Also, the SiS968 Southbridge supports 8 USB2.0 ports, which perfectly meets the requirement of connecting more and more

devices. Moreover, it supports the most advanced 8-channel High-Definition Audio surround sound to provide better sound effects, and supports Gigabit Ethernet to have faster internet access.

Key Features

SiS HyperStreaming™ Technology Empowered

Host Interface
 - Supports Intel® Core™2 Duo/Pentium® D/Pentium® 4 processor
 - Supports 800/533MHz Front-Side Bus processor

PCI Express Graphics interface
 - PCI Express base Spec. 1.1 compliant
 - Supports PCI Express base frequency 2.5GHz, and bandwidth per pair of 250MB/s
 - Supports the maximum bandwidth, 4GB/s of each direction in x16 configuration

Single Channel Memory Controller
 - Supports DDR2-667/533/400
 - Supports two DIMMs
 - Up to 2GB per DIMM with maximum memory size up to 4GB

SiS Mirage™ 3+ Graphics Engine
 - Built-in a High performance DX9 graphic engine
 - Supports High Definition Video interface for TV or LCD display
 - Maximum 256MB share memory

High throughout MuTIOL® Connect interfaced to South Bridge Chip
 - Proprietary interconnect between SiSM672 and South Bridge Chip
 - Bi-Directional 16 bit Data Bus at 533MHz operating frequency

SiS968 The Southbridge for Windows Vista Ready
SiS MuTIOL® 1G Delivering 1GB/s Bandwidth
- Proprietary Interconnect between SiS north bridge and SiS968
- Bi-Directional 16 bit Data Bus at 533MHz Operating Frequency

PCI Express Controller
- PCI Express base Spec. 1.1 compliant
- Supports two PCI Express x1 ports

Serial ATA Host Controller
- Provides 2 independent ports for SATA, compliant with Serial ATA 2.5 Specification with transfer rate 300MB/s

- Compliant with AHCI 1.1 Specification
- Supports RAID 0, 1, and JBOD

USB 2.0/1.1 Host Controller
- One EHCI USB 2.0 Controller and 2 OHCI USB 1.1 Controllers
- Supports Total 8 USB 2.0/1.1 Ports
- Supports USB 2.0 High-Speed Device @480 Mb/s Transfer Rates

High-Definition-Audio Controller
- HD Audio v1.0 compliance

Gigabit Ethernet MAC Controller
- 10/100/1000Mbps triple speed
- MII/RGMII standard interface to support external PHY

Serial Peripheral Interface Master Controller
- Support two SPI devices
- Support 20/25/33MHz device

Advanced Power Management
- ACPI 3.0 and APM 1.2 Compliant

Single IDE Channels with ATA 133/100

Support Up to 6 PCI Masters

LPC 1.1 Interface

Features & Benefits

Features	Benefits
	64-bit Architecture The 64-bit architecture gives users the power to improve performance for many applications.
	HyperStreaming Technology It makes streams of chipset data flow all over the paths efficiently, smoothly and intelligently. That can improve whole system performance.
	Dual-Core Support Supports Intel® Core 2 Duo/Pentium® D/Pentium® 4 CPU with FSB 800MHz CPU with Hyper-Threading technology.

PCI Express x16 Graphics Supporting
 Provide best system performance through high bandwidth 4.0GB/s.

SiS Mirage™ Graphic Engine
 Powered by SiS Mirage™ 3⁺ Graphics Engine, Microsoft DirectX 9.0 H/W compliant, Certified for Windows Vista Premium.

LCD-TV Support
 Dual view function support for LCD-TV,LCD-CRT or CRT-TV. Enrich your digital home experience.

High Definition Video Interface
 SiS new generation video interface, provides ultra high transmission speed and data bandwidth between Mirage™ 1 and Video Bridge.

DDR2 Support
 Single channel DDR2 memory architecture. Offers the maximum bandwidth up to 5.4GB/s (DDR2-667).

MuTIOL® 1G Technology
 Proprietary Interconnect between north bridge and south bridge. SiS MuTIOL® 1G delivers 1GB/s bandwidth.

Advance Host Controller Interface (AHCI)
 Provide the anticipated features of SATA to increase performance by optimizing the execution order of workloads.

SATA & RAID functions
 Provides 2 independent SATA ports, compliant with Serial ATA 1.0 Specification, and supports RAID 0, 1, and JBOD configuration.

High Definition Audio (HDA)
 Perform high quality audio by supporting 192KHz high sampling frequency, 7.1 surround sound, and Dolby® Digital.

PCI Express x 1 support
 Completely with support for PCI Express, it makes the ideal for connecting high-speed peripheral devices for multimedia applications.

Gigabit Ethernet
 Gigabit Ethernet promises to revolutionize the world of data transmission. New multimedia applications that will benefit from Gigabit Ethernet include downloadable movie, television and music services which connect through the Internet, bypassing traditional methods of delivery.

USB2.0
 Meets the requirement for increasing plug and play USB devices.

ATA133 enhancement
 Fastest storage support. Increasing data/file transfer rate.