

Entry-Level Chipset

SiS672FX Chipset Reference Board

BY KEVIN BOEY

SiS has done a fair amount of media relations work on their SiS672FX chipset over the past few months, and it is their largest rollout ever since the SiS771 found on AMD 64 motherboards. For one, we have got to give credit where it's due, and when this motherboard entered our labs, we were prepared to give it a closer look. The reference motherboard you see on this page is of course, not a complete depiction of what the chipset would look like on production motherboards.

Starting from the top, the SiS672FX is able to support the very latest Intel Core 2 Duo and Core 2 Quad processors and even the Core 2 Extreme as it supports Quad-core processing, although at a slower bus speed of 1066MHz instead of the full-fledged 1333MHz FSB. You also get single channel memory support in the form of two DDR2 667/533MHz slots supporting a total of 4GB. Expansion duties are handled by the SiS968 Southbridge that supports up to six PCI slots and a PCI-E x16 slot.

Like any other good chipset, the SiS672FX includes a HD audio controller, SATA 3Gb/s expansion slots and support for DirectX 9.0c. Unfortunately though, you are only given two SATA 3Gb/s ports with RAID 1 or 0 capabilities. You even get AHCI

features that enable hard drive hot-swapping and NCQ capabilities. While quite advanced, we would prefer also to have more ports in the interests of expandability and flexibility.

Other interesting features of the chipset are the options to include a Trusted Platform Module 1.2, the addition of Gigabit Ethernet through the use of a SiS196 controller and the proposition of a multi-monitor setup when you add a SiS307 series graphics accelerator. Speaking about graphics, the latest incarnation of the Mirage 3D accelerator is present. The Mirage 3+ is a graphics chipset that is built for DX9, and is Windows Vista Premium capable. In fact, the chipset is Vista Premium certified, but in our tests, we find it unsuitable for DirectX 9 gaming as it lacks the muscle to pump-out decent frame rates above XGA resolutions.

The redeeming features of the chipset are its low voltage consumption leading to low heat buildup, and its resilience in taking continuous abuse. The test board barely registered heat to our bare hands, and we are confident that the chipset would hardly need a heatsink in an office environment. The mixture of components also makes it desirable for manufacturers who want the most comprehensive feature set in a small and modular form factor.

There are downclocking features present on the chipset which throttles down the graphics chipset clock when performance is not needed i.e. during spreadsheet and word processing duties.

Overall, the SiS672FX is an able performer, not in the all-out department, but as a chipset that's able to take endless 24/7 computing. In fact, the reference motherboard came with digital mosfets and solid-state capacitors for the 4-phase power circuit!

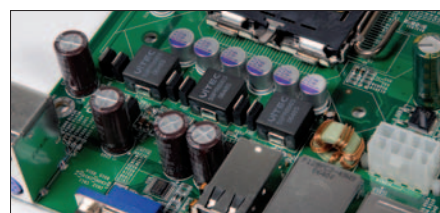
SPECIFICATIONS

Chipset	Processor	Memory	Storage	Price
SiS672FX	Core 2 Duo/Quad/Extreme/Pentium D/4	2x DDR2 667/533	1x ATA 133/100 IDE, 2x SATA 3.0 Gb/s	N/A

Processor: Intel Core 2 Duo, Core 2 Quad, Core 2 Extreme, Pentium D & Pentium 4
Memory: 2x DDR2 667 / 533 DIMMs (Max capacity: 4GB)
FSB: 1066 / 800 / 533
Graphics: SiS Mirage 3+, Max 256MB shared memory
Storage: 1x ATA 133 / 100 IDE, 2x SATA 3.0 Gb/s
I/O: 1x Floppy supports up to 2.88 MB, 1x ATA 133/100 IDE connector, 2x SATA 3Gb/s connector, 3x USB header (supports 6 additional ports), 1 x FP-Audio
Back I/O: 1x PS/2 Keyboard, 1x PS/2 Mouse, 7.1 CH Audio, 2x USB2.0, 1x RJ-45, 2x S/PDIF output
Expansion: 1x PCI-E X16, 6x PCI
URL: www.sis.com

Available at
PLAZA LOW YAT
 shopping centre

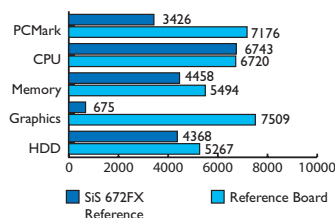
HWM'S VERDICT



A closer view of the power circuits

Test PC: E6700 Core 2 Duo processor (dual-core 64-bit 775-contacts 65-nanometer 2.66GHz 4MB Level 2 cache), Corsair XMS2 1GB DDR2 1GHz latency 5 dual-channel memory, Samsung SpinPoint 7200RPM 8MB cache SATA2 (300MBps) drive, ATI Radeon X1900XTX 1GB DDR3 CrossFire

PCMark 2005 Pro 1.1:



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While it scores on paper look pretty understated, it will provide great bang for the buck in office computers and standalone terminals