



# VIA K8T800 Pro PERFORMANCE CHIPSET



Features	K8T800 Pro Server/Workstation	K8T800 Performance PC
Processor Support	AMD Opteron Single/Dual Processor, AMD Athlon FX, AMD Athlon 64 (939 pin & 754 pin)	AMD Opteron Single/Dual Processor, AMD Athlon FX, AMD Athlon 64 (754 pin)
Front Side Bus	2.0GHz (1GHz Upstream & Downstream)	1.6GHz (800MHz Upstream & Downstream)
Bus Architecture	HyperTransport Bus Link	HyperTransport Bus Link
Memory Bus	Asynchronous 64/128-bit DDR memory controller integrated directly into processor	Synchronous 64/128-bit DDR memory controller integrated directly into processor
AGP Support	AGP 8X	AGP 8X
<b>South Bridge</b>	<b>VT8237</b>	<b>VT8237</b>
North/South Bridge Link	Ultra V-Link (1066MB/s)	V-Link (533MB/s)
Audio	VIA Vinyl™ 6-channel Audio (AC'97 integrated) VIA Vinyl™ Gold 8-channel Audio (PCI companion controller)	VIA Vinyl™ 6-channel Audio (AC'97 integrated) VIA Vinyl™ Gold 8-channel Audio (PCI companion controller)
Network	VIA Velocity™ Gigabit Ethernet (PCI companion controller) VIA integrated 10/100 Fast Ethernet	VIA Velocity™ Gigabit Ethernet (PCI companion controller) VIA integrated 10/100 Fast Ethernet
SATA	Dual Channel Serial ATA supports 2 x SATA devices SATALite™ interface for two additional SATA devices (4 total)	Dual Channel Serial ATA supports 2 x SATA devices SATALite™ interface for two additional SATA devices (4 total)
V-RAID	RAID 0, RAID 1 RAID 0+1* & JBOD	RAID 0, RAID 1 RAID 0+1* & JBOD
PATA	Dual Channel Parallel ATA133 (up to 4 devices)	Dual Channel Parallel ATA133 (up to 4 devices)
USB	8 ports	8 ports
PCI Devices/Slots	6	6
Modem	MC'97	MC'97
I/O Protocols	I/O APIC / LPC Super I/O	I/O APIC / LPC Super I/O
Power Management	ACPI/APM/PCI/PM	ACPI/APM/PCI/PM

## Benefits

### VIA Hyper8™ Technology

VIA's unique Hyper8 technology eliminates noise on the HyperTransport link between the processor and chipset, enabling the industry's only full-speed, full-spec 16-bit/2.0GHz implementation of the processor-to-chipset HyperTransport link.

### VIA Modular Architecture Platform

To best exploit the rapid pace of innovation in the PC industry, VIA's classic North/South Bridge configuration allows for the most scalable mainboard design, providing the fastest time to market with new features and system performance enhancements.

### Native Serial ATA/RAID Support

The VIA DriveStation™ Controller Suite with native dual channel Serial ATA/RAID controller, provides direct support for two 150MB/s Serial ATA devices, while the SATALite™ interface expands support for two additional SATA devices. The V-RAID controller features native RAID 0, RAID 1, RAID 0+1\* and JBOD support, ensuring optimum data integrity and system performance. The user friendly V-RAID software interface enables easy disk array configuration and management.

### VIA Vinyl Multichannel Audio Suite

Delivering rich, warm surround sound at resolutions as high as 24/96 through up to six- or eight-channel outputs, VIA Vinyl Audio and VIA Vinyl Gold Audio enable crisp, clear performance, representing the highest levels of audio quality in a mainstream integrated or onboard solution.

## Features

- Supports full range of AMD Opteron/Athlon FX/Athlon 64 (939 & 754-pin) processors
- Hyper8 Technology enables 16-bit/2.0GHz HyperTransport processor-to-chipset link
- Asynchronous bus architecture
- Support for AGP 8X/4X
- Ultra V-Link 1066 MB/sec high bandwidth North/South Bridge interconnect
- Support for VIA Vinyl Gold 8-channel Audio controller & integrated VIA Vinyl 6-channel Audio
- Serial ATA support for up to 4 devices
- Integrated V-RAID with RAID 0, RAID 1, RAID 0+1\*, and JBOD (SATA) support
- Parallel ATA133/100/66 support for up to 4 devices
- Support for up to 8 USB 2.0/USB 1.1 ports, UHCI compliant
- Support for VIA Velocity Gigabit Ethernet companion controller & Integrated 10/100 Fast Ethernet
- Integrated MC'97 Modem
- Advanced power management capabilities including ACPI/OnNow
- 578-pin BGA North Bridge
- 539-pin BGA VT8237 South Bridge

\* RAID Level 0+1 requires four SATA drives; support for the two additional drives can only be implemented with two external Serial ATA ports enabled through a SATALite PHY.





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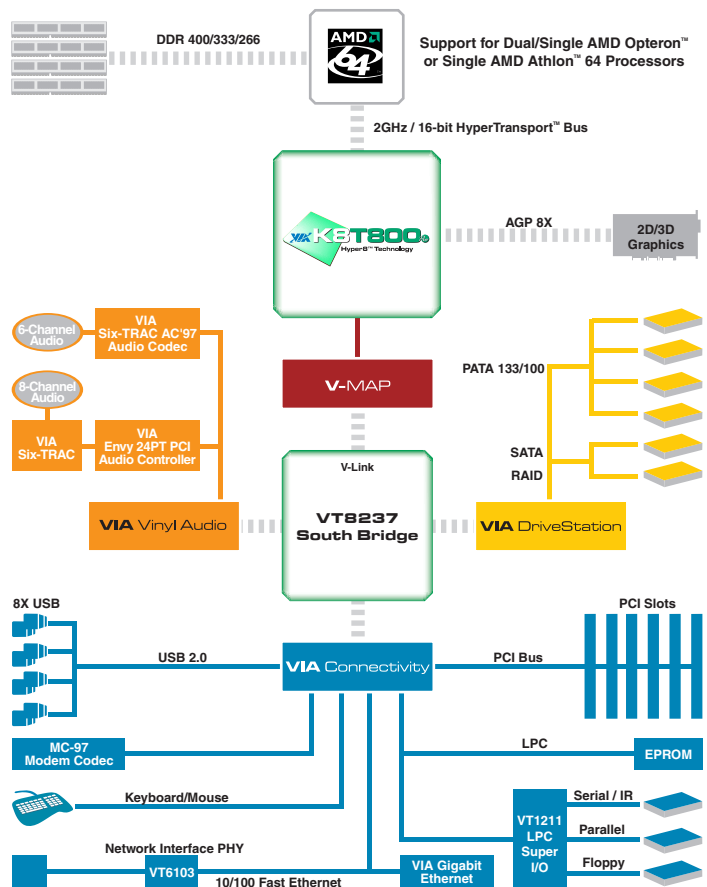
Powering the AMD 64-bit Revolution



The VIA K8T800 Pro chipset with second generation Hyper8™ technology and an asynchronous architecture, is optimized to power the latest AMD Athlon™ 64 and Athlon™ 64 FX-based workstations and high performance gaming platforms, as well dual/single AMD Opteron processor-based servers. Utilizing VIA's unique second generation Hyper8 technology, the HyperTransport link between the AMD64 processor and VIA K8T800 Pro provides a 16-bit/2.0GHz data transfer rate for a total bandwidth of 8.0GB/s.

Combined with the VIA VT8237 South Bridge, the K8T800 Pro enables an unparalleled range of cutting edge I/O and multimedia features, including a 2.0GHz HyperTransport Bus Link, AGP 8X, Native Serial ATA/RAID, and VIA Vinyl 6-channel audio, in addition to VIA Vinyl Gold 8-channel audio and Gigabit Ethernet when paired with VIA companion controllers.

Featuring the VIA DriveStation™ Controller Suite, the VIA VT8237 South Bridge provides the most comprehensive support for high-performance integrated storage interface technologies available on the AMD64 platform. In addition to enabling high-speed 150MB/s dual channel connections to Serial ATA Hard Drives while retaining support for up to four Parallel ATA-133 devices, it combines exceptionally fast disk data transfer rates and optimal data integrity with easy installation and manageability through V-RAID, the first native RAID controller integrated into a South Bridge supporting multiple RAID configurations. The VT8237 also features the VIA Vinyl Multichannel Audio Suite for superlative 6-channel and 8-channel immersion audio support, while the VIA Advanced Connectivity Suite offers a host of high-bandwidth connectivity options, including support for the VIA Velocity™ Gigabit Ethernet companion controller, integrated 10/100Mbps Fast Ethernet and up to eight high-speed USB 2.0 ports.



The VIA K8T800 Pro benefits from VIA's unique V-MAP (VIA Modular Architecture Platform) architecture that facilitates faster product development and speeds up time to market, and features the high-throughput Ultra V-Link interconnect running at speeds of up to 1066MB/s between the North and South Bridge.