Chipset

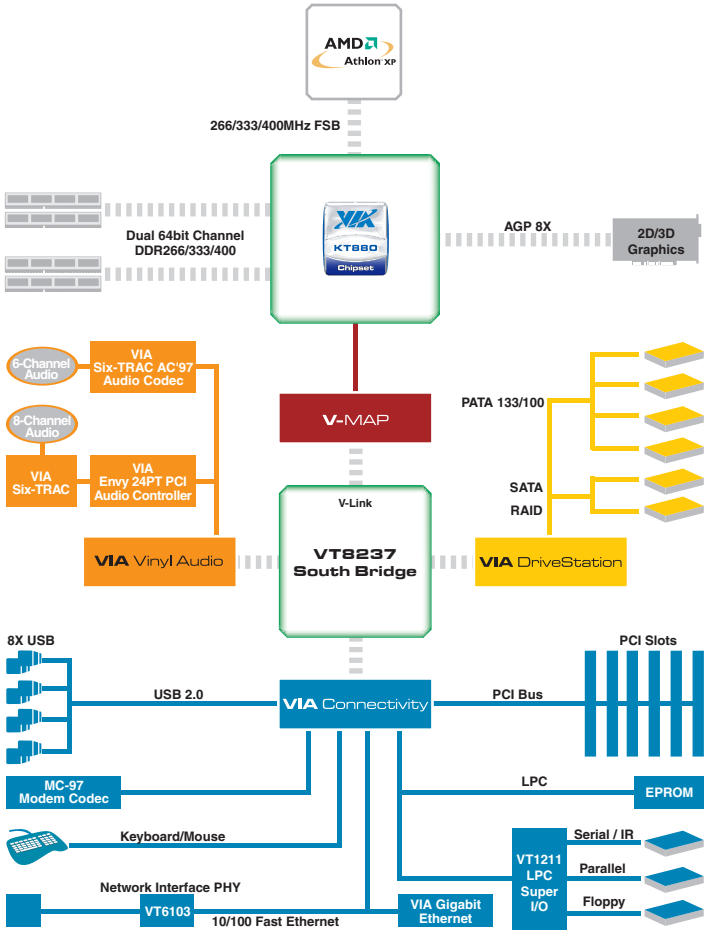
VIA KT880
PERFORMANCE CHIPSET

Bringing Dual Channel DRR400 and Native Serial ATA/RAID to the AMD Athlon XP Processor Platform

The VIA KT880 chipset delivers DualStream64™ dual channel DDR400 memory performance to the AMD Athlon XP processor platform. Building on the market leading position of the VIA KT Series, the KT880 is designed to meet the demanding requirements of high bandwidth 3D gaming and digital media applications. Paired with the acclaimed VT8237 South Bridge, it offers category-leading features such as AGP 8X, 400MHz FSB, Native Serial ATA/RAID and VIA Vinyl 6-channel Audio, in addition to VIA Vinyl Gold 8-channel audio and Gigabit Ethernet support.

Harnessing a host of intuitive technologies, the VIA DualStream64™ memory controller enables lightning fast access to dual 64-bit channels of DDR memory, optimizing system performance through an enhanced data prefetch protocol and improved memory branch predictions. Further performance enhancements include a larger on-chip branch table and a tighter read/write turn-around for improved clock timings.

Featuring the VIA DriveStation™ Controller Suite, the VIA VT8237 South Bridge provides the most comprehensive support for high-performance integrated storage interface technologies, with 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, and the VIA Advanced Connectivity Suite for 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 KT880 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 V-Link interconnect running at speeds of up to 533MB/s between the North and South Bridge.

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Features	KT880	KT600
Processor	AMD Athlon™ XP	AMD Athlon™ XP
Front Side Bus	400/333MHz	400/333MHz
Memory Support	DualStream64™ - Dual Channel DDR400/333 SDRAM	FastStream64™ - Single Channel DDR400/333 SDRAM
Max. Memory	8.0GB	4.0GB
AGP Support	AGP 8X/4X	AGP 8X/4X
Bus Architecture	Synchronous	Synchronous
South Bridge	**VT8237**	**VT8237**
North/South Bridge Link	V-Link (533MB/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)
Serial ATA	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 & JBOD
Parallel ATA	Dual Channel Parallel ATA133 (up to 4 devices)	Dual Channel Parallel ATA133 (up to 4 devices)
Network	VIA Velocity™ Gigabit Ethernet (PCI companion controller) VIA integrated 10/100 Fast Ethernet	VIA integrated 10/100 Fast Ethernet VIA integrated 10/100 Fast Ethernet
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

DualStream64
VIA DualStream64 is the world's most intelligent dual channel memory controller featuring revolutionary intuitive technologies. The VIA DualStream64™ memory controller enables lightning fast access to dual 64-bit channels of DDR memory, optimizing system performance through an enhanced data prefetch protocol and improved memory branch predictions, as well as a larger on-chip branch table and tighter read/write turn-around for improved clock timings.

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 software interface enables easy disk array configuration.

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.

Unified VIA Hyperion 4in1 Drivers
VIA's unified approach to drivers has been established for eight generations of chipsets, allowing end users to benefit from seamless hardware and software compatibility.

Features

- Supports full range of AMD Athlon™ XP processors
- 400/333MHz FSB settings
- Supports up to 8GB Dual Channel DDR400/333/266
- Support for AGP 8X/4X
- Synchronous bus architecture
- V-Link 533MB/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
- 806-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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