

VIA

# CN896+ VT8237S

North Bridge & South  
Bridge



The VIA CN896 North Bridge contains VIA's first graphic core supporting DirectX 9.0 3D graphics and it is also designed to support PCI Express to fully meet the increased system bandwidth demands placed on peripheral devices. Combined with VIA's latest processors, the CN896 demonstrates the efficacy of the 800 MHz V4 host bus with its maximum data throughput of 6.4 Gbps. Its design provides OEM partners with a power efficient platform for affordable systems.

The VIA CN896 is rich in graphics features. Its integrated VIA C-9 HC IGP provides support for 2D and 3D acceleration and is fully compatible with DirectX 9.0. Together with a high performance VIA South Bridge VT8237S, the VIA CN896 offers a truly engaging multimedia experience.

The VIA CN896 supports a wide array of display devices. Tailor the CN896 for use with flat panel displays, a wide variety of LCD panels, TFT color panels, DVI monitors and TV displays. Separate display engines enable two outputs to display simultaneously with different information at different resolutions, pixel depths and refresh rates.

Supported by the VIA VT8237S South Bridge, the VIA CN896 North Bridge provides optimized system performance and power-efficient architecture, fully certified with the Microsoft® Windows Vista™ Logo. It incorporates support for a rich set of features including high bandwidth SATA (3 Gbps), USB 2.0, PCI Express, 10/100 Mbps Fast Ethernet, superb high definition multimedia experience with integrated VIA Vinyl HD audio core, and legacy interfaces such as PS/2 and PCI slots.

## Key Features

### Host Interface

- VIA Nano™/C7®/Eden™ processor (up to 800 MHz FSB)

### North/South Bridge Link

- 1 GB/sec 16-bit V-Link host controller supporting V-Map Modular Architecture

### System Memory

- Supports 64-bit DDR 333/400 or DDR2 533/667 (4 GB max)
- Optimized Unified Memory Architecture (UMA)

### Unified Video Decoding Processor

- Integrated VIA C-9 Graphics core supporting DirectX 9.0 3D graphics
- Motion 3.0 CE Video Display engine
- MPEG-2 video decoding acceleration with motion compensation
- 128-bit 2D and 3D Graphics engine
- Full HDTV support up to 1080i / 720p

### VIA Vinyl™ Audio

- Supports VIA Vinyl Gold 8-channel HD Audio controller & integrated VIA Vinyl 6-channel HD Audio

### Display Interface

- 12-bit DVI transmitter (with VT1632A)
- 24-bit flat panel display interface and dual 12-bit flat panel display interface (with VT1636)
- 12-bit interface to external TV encoder for SDTV and HDTV display (with VT1625)
- Supports DuoView+™
- CRT display interface, supporting up to 1920 x 1440

### Storage Interface

- Supports up to two SATA (3 Gbps) devices
- Supports up to four Parallel ATA 66/100/133 devices
- RAID 0, 1, JBOD

### Peripheral Expansion Bus

- Supports eight USB 2.0 ports
- Supports enterprise class 10/100 Mbps Fast Ethernet MAC
- Supports PCI buses (6 masters)
- Supports one x16 PCI Express and two x1 PCI Express ports
- Supports GPIO
- Supports ISA (external support)
- Supports COM port (with VT1211)

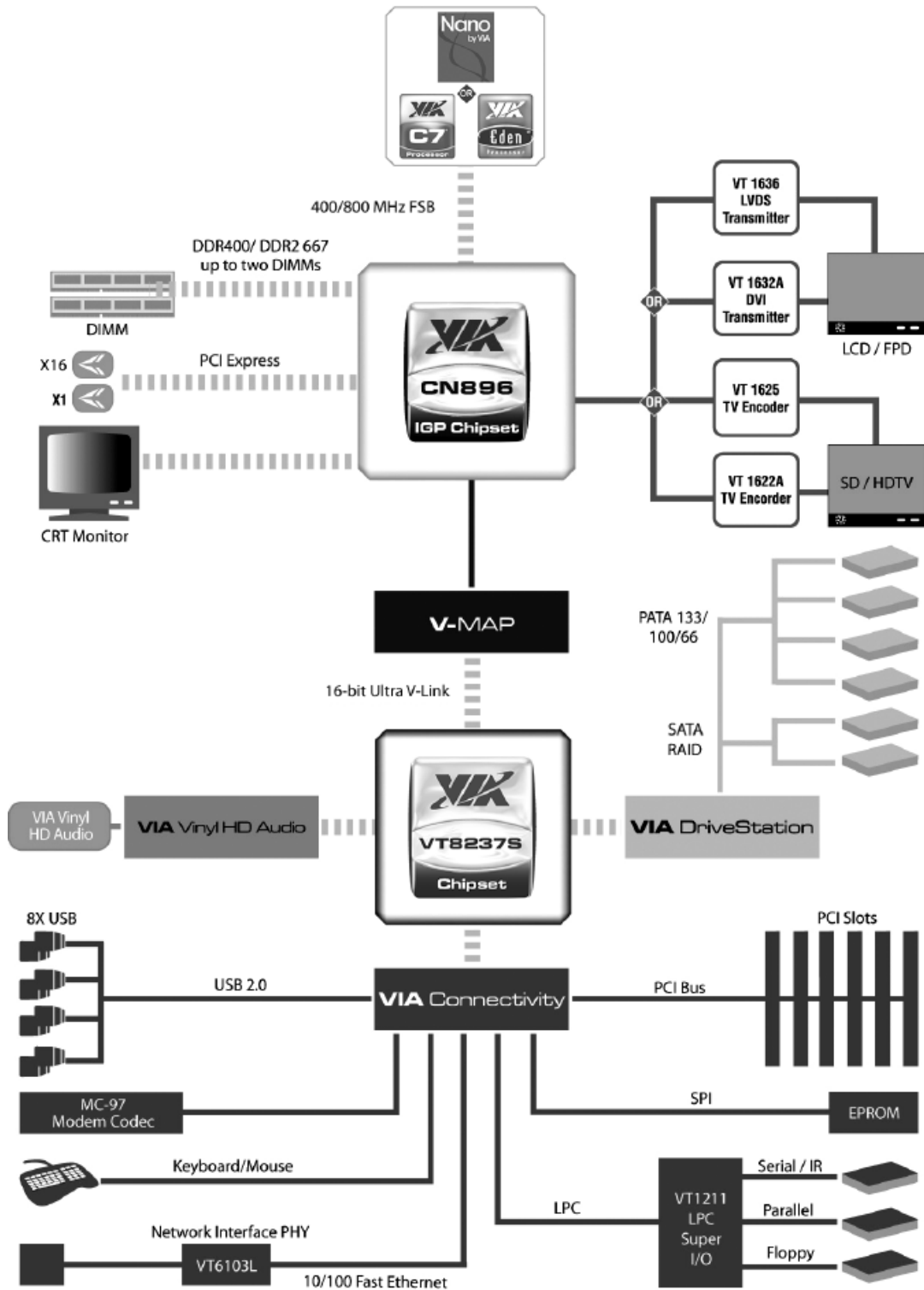
### Power Management

- PowerSaver™ support
- Advanced system power management support

### TDP Power

- TDP max: 3.6 W for CN896 with integrated GFX  
1 W for VT8237S

CN896+VT8237S Block Diagram



\* All product specifications are subject to change without notice. Update: February 20, 2012.