
VIA CN700+ VT8237R Plus

North Bridge & South
Bridge



The first chipset to support the VIA C7® processor family, the VIA CN700 is fully optimized to provide an outstanding HD digital media experience. Featuring the high bandwidth V4 bus as well as support for DDR2 memory modules, the VIA CN700 delivers a highly advanced solution for developers interested in designing a wide range of powerful embedded and desktop devices.

Featuring the VIA UniC-Pro IGP, the chipset provides exceptional graphics performance with its the C-Motion CE Video Display engine and hardware MPEG-2 acceleration. Together with an advanced 2D/3D graphics core, the VIA CN700 offers exceptional playback and streaming of various digital video formats while maintaining ultra low power consumption and exerting minimal load on the processor. The VIA CN700 also provides extensive display support with outputs to CRT, LCD and standard definition TV as well as support for HDTV up to 1080i resolution.

The CN700 features a robust shared memory architecture and support for up to 2 GB of high bandwidth DDR2 533 or DDR400 memory, as well as a high speed V-Link interface for a 533 MB/sec connection to VIA's feature leading South Bridge options.

Combined with a VIA VT8237R Plus South Bridge, the VIA CN700 offers a comprehensive range of integrated storage, multimedia and connectivity options, including SATA and V-RAID (with support for RAID 0, RAID 1 and JBOD arrays), USB 2.0, and 10/100 Mbps Fast Ethernet, as well as the Ultra V-Link chipset interconnect with over 533 MB/sec of bandwidth.

Key Features

Host Interface

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

North/South Bridge Link

- 533 MB/sec 8-bit V-Link host controller supporting V-Map Modular Architecture

System Memory

- Supports 64-bit DDR 333/400 or DDR2 400/533 (2 GB max)
- Optimized Unified Memory Architecture (UMA)

Unified Video Decoding Processor

- Integrated VIA UniC-Pro Graphics C-Motion CE
- Video Display engine
- MPEG-2 video decoding acceleration with VLD, IDCT and motion compensation
- 128-bit 2D and 3D Graphics engine

VIA Vinyl™ Audio

- Supports VIA Vinyl Gold 8-channel HD Audio controller & integrated VIA Vinyl 8-channel AC'97 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
- Supports AGP 8X extension

Storage Interface

- Supports up to two SATA 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 GPIO
- Supports ISA (external support)
- Supports COM ports (with VT1211)

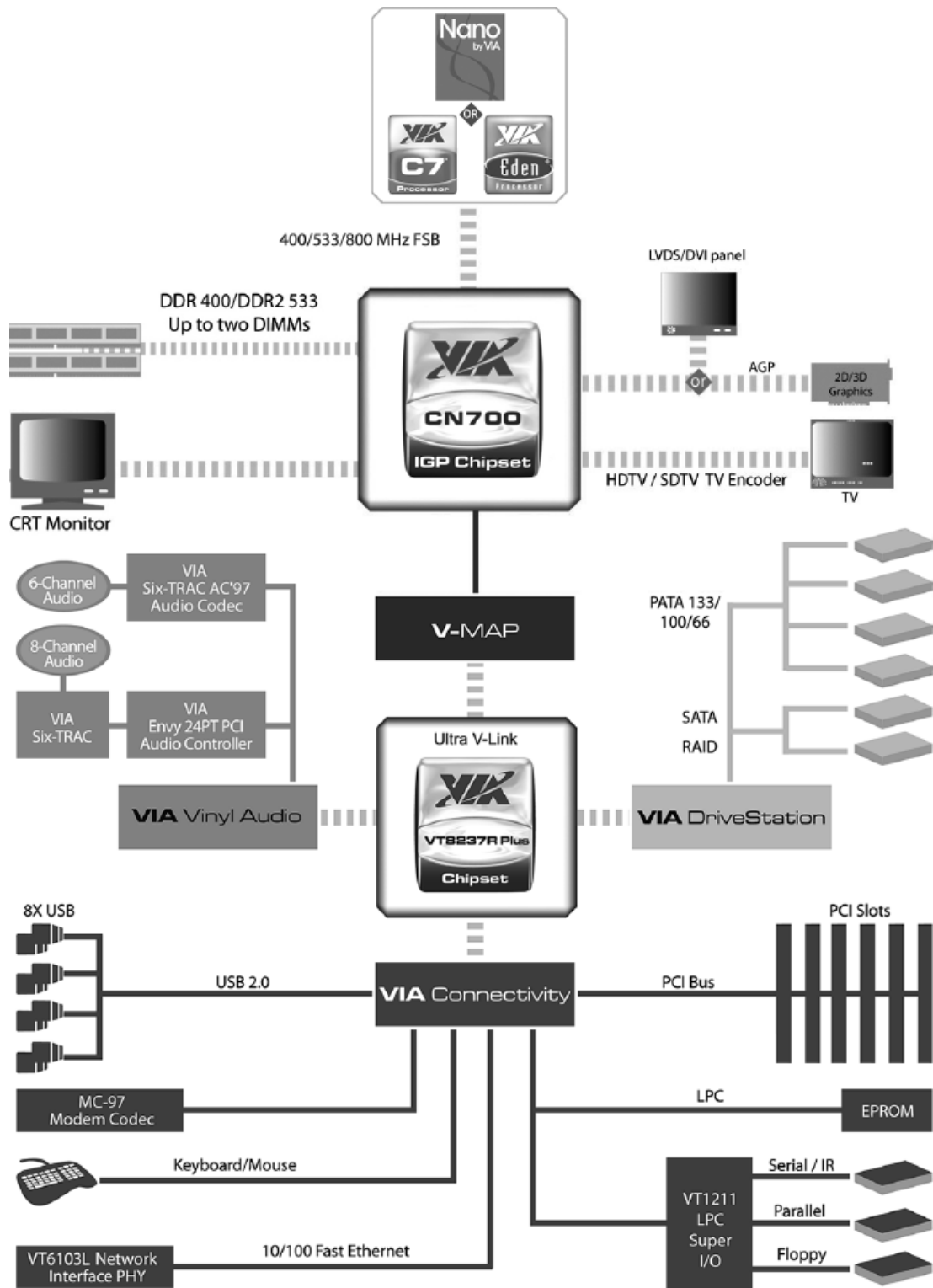
Power Management

- Advanced system power management support

TDP Power

- TDP max: 2.3 W for CN700
1.8 W for VT8237R Plus

CN700+VT8237R Plus Block Diagram



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