

VIA VX900

Unified Digital Media IGP
Chipset



Created using 80nm process technology, the VIA VX900 is a highly integrated media system processor designed for the latest media-intensive applications. The VIA VX900 provides state-of-the-art x86 PC capabilities with industry-leading advancements in both high definition playback and energy efficiency in a 31 mm x 31 mm package.

The VX900 supports single-channel DDR3 memory up to 1066 MHz while also maintaining support for DDR2 memory up to 800 MHz, enabling faster memory access speeds and optimal system performance. It delivers outstanding high-bandwidth interfaces such one 8-lane PCIe port, three 1-lane PCIe ports, up to 2 SATA 3Gbps ports, eight USB 2.0 ports, and one USB device port connectivity. The VX900 also features extensive I/O capabilities including SDIO, UART, SPI, RTC, LPC and SMBus. A card reader interface is supported for MMC, MS, SD and XD memory card.

Integrated with the VIA Chrome9™ HD DX9 high definition video processor, the VIA VX900 can deliver significant graphics performance in 3D rendering. The VX900 includes a full video decoder for high-definition H.264, VC1, MPEG-2 and WMV9 video stream playback. It also supports Blu-ray and HD video along with a suite of video enhancements.

The multi display support of the VIA VX900 includes a dedicated CRT interface, integrated single-channel LVDS transmitter, a digital video output port (DVO) to an external HDMI/LVDS/DVI transmitter and TV encoder, and two DisplayPort™ ports. DuoView™ support allows multi-monitor extended desktop support where two independent display engines can simultaneously display different content at different resolutions, pixel depths and refresh rates.

Combined with VIA Nano™ series processors, the VIA VX900 offers a power-efficient entertainment-focused platform that makes light work of HD video and the latest Blu-ray playback. Its smooth performance makes it ideal for mainstream media applications.

Key Features

Host Interface

- VIA Nano™ / C7® / Eden™ processor (400 - 800 MHz FSB)

Memory Controller

- Supports DDR3 1066 and DDR2 800 MHz SDRAM (up to two double-sided DIMM)

High Definition Audio Interface

- Up to 32-bit sample depth at 192 kHz sample rate and up to 8 channels
- Supports three codecs and eight streams

Integrated 2D / 3D / Video Processor

- VIA Chrome9™ HD DX9 3D engine
- 128-bit 2D engine with hardware rotation capability
- High definition video processor with VMR and scaling capability
- Up to 512 MB frame buffer

High-Definition Video Decoding

- Blu-Ray ready. H.264, VC1, and MPEG-2 full decoder

Video Capture Port

- CCIR656/601 input + one serial TS input

Storage Interface

- SATA 3Gbps interface (up to 2 ports)
- Supports SD/MS/MMC/xD memory card

Display Interface

- Three 10-bit 350 MHz RAMDACs
- Two DisplayPort™ ports
- HDMI™ / single-channel LVDS / 18-bit TTL
- DVO port
- DuoView™

Peripheral Interface

- Supports one 8-lane PCIe port and three 1-lane PCIe ports
- Eight USB 2.0 and one USB device port
- Supports one SDIO, four UART, SPI and LPC

Supported Software Standards

- Microsoft® DirectX 9.0
- Microsoft® Windows 7, Vista and XP, Win CE and Linux

Power Management

- ACPI 3.0 and PCI Bus Power Management 1.1 compliant
- Extensive chip power management

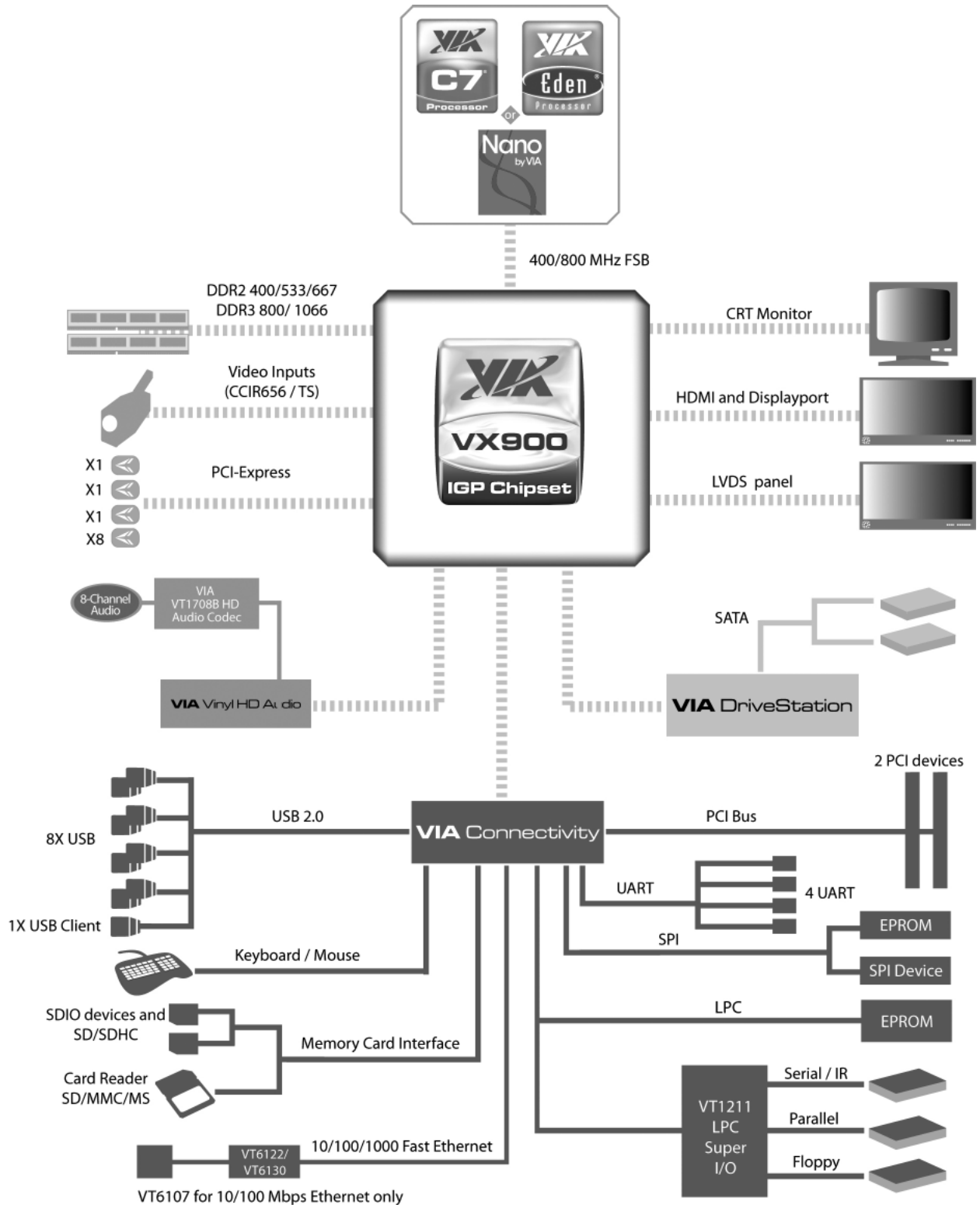
Package

- Flip-Chip Ball Grid Array (FCBGA)
- Size: 31 mm x 31 mm

TDP Power

- TDP max: 4.5 W

VX900 Block Diagram



* All product specifications are subject to change without notice. Update: January 26, 2011.