



VIA VT6202 USB 2.0 Host Controller



Communications

Introduction

Universally adopted by the PC industry as the primary interface for computer peripherals, the USB 1.1 standard is rapidly being superseded by the USB 2.0 specification, offering transfer rates 40 times faster to satisfy even the most demanding peripherals and applications. Data transfers of 480Mbps better suit the more bandwidth-hungry applications being developed in today's PC market, such as digital photography and faster broadband Internet connections, while the performance of USB 2.0 enabled peripherals such as video cameras and next generation scanners and printers is greatly enhanced.

VIA VT6202 USB 2.0 Host Controller

Compliant with key industry interfaces, the VIA VT6202 USB 2.0 Host Controller facilitates this greater functionality, providing a seamless plug-and-play connection for USB 2.0 enabled peripherals. Additionally, the VIA VT6202 supports the PCI-Bus Power Management Interface specification, with advanced power efficiency features that permit aggressive management of I/O power consumption, ensuring that the VIA VT6202 is suitable even for low power systems.

Incorporating two Universal Host Controller Interface cores and one Enhanced Host Controller Interface core to provide the full range of signaling speeds, the VIA VT6202 is a multi-functional PCI device utilizing the exceptional bandwidth of USB 2.0 to support a wide range of high-speed peripherals, from higher resolution video/graphics peripherals to fast storage unit access. With a root hub of four downstream facing ports with integrated physical layer transceiver and legacy support for all downstream facing ports, the VIA VT6202 offers the PC user complete operational flexibility and the capability to run multiple peripherals requiring higher bandwidth at the same time.

Features

- Compliant with Universal Serial Bus (USB) Specification Revision 2.0
- Compliant with Universal Host Controller Interface Specification Revision 1.1
- Compliant with Intel's® Enhanced Host Controller Interface Specification Revision 0.95
- PCI multi-function device consists of two UHCI Host Controller cores for full/low speed signaling and one EHCI Host Controller core for high speed signaling
- Root hub comprises 4 downstream facing ports with integrated physical layer transceivers shared by UHCI and EHCI Host Controllers
- Support PCI-Bus Power Management Interface Specification release 1.1
- Legacy support for all downstream facing ports
- 2.5V power supply with 5V tolerant inputs
- Manufactured using 0.22 micron, low power CMOS process
128-pin PQFP/LQFP package

Benefits

Multi-functionality

The four downstream ports and full legacy support enables the running of multiple high-speed peripherals simultaneously.

Simplicity

A simple, low-cost peripheral connection interface for all USB 2.0 enabled regular PC peripherals as well as the new generation of higher bandwidth devices.

Energy Efficient

Advanced power management mechanisms exert control over I/O power consumption in power-sensitive applications, ensuring the benefits of the VIA VT6202 even in low power systems. (<http://www.OrpheusComputing.com/>)