

M1695

HyperTransport™ PCI Express™ Tunnel Chip



- HyperTransport™ I/O Link Specification Revision 1.05 and 2.0 compliant
- 16 x16 HyperTransport™ Bus to Host and 16 x16 HyperTransport™ Bus to Downstream Device
- PCI Express™ Interface for Graphics and I/O Devices

Flexibility The way you want it.

EXPRESS POWER ULi M1695 is a new generation PCI Express™ HyperTransport™ Bridge chip that supports a wide range of AMD Athlon™ 64 processors including Socket 754, Socket 940 and Socket 939 CPUs.

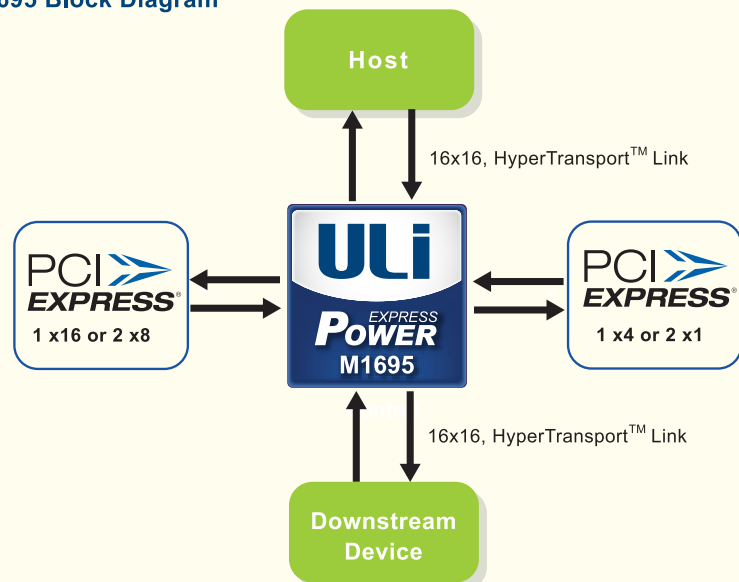
Featuring the advanced HyperTransport™ tunneling architecture, ULi M1695 offers system manufacturers unprecedented design-flexibility to seamlessly interconnect with other HyperTransport™-based Host and Bridge chips.

Unlike other existing PCIe-AGP combination solutions that either supports lesser PCI Express lanes (e.g. PCIe x4) or AGP 8X interface running under PCI mode, ULi's M1695 when paired with the ULi M1567 South Bridge, offer simultaneous support for PCI Express x16, and AGP 8X graphics interfaces that makes it possible to connect to multiple monitor displays.

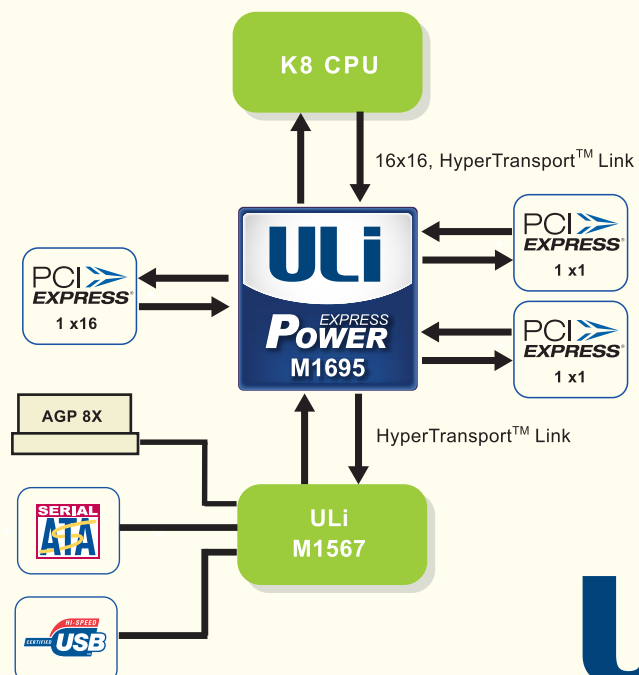
M1695 provides PCI Express™ link at either the 1 x16 (4 GB/Sec peak bandwidth per direction) or the 2 x8 configurations to support next-generation high-performance PCI Express™ 3D graphic controllers. Coupled with the additional PCI Express™ link at either 2 x1 or 1 x4 (or x1 or x2) configuration to support high-speed I/O devices, M1695 offers tremendous throughput that easily meet the requirements of the most demanding multimedia applications. The versatility of M1695 enables system manufacturers to build powerful PC systems with ease and at reasonably low cost.

With up to 2 GT/Sec over both the upstream and the downstream HyperTransport™ links, optimum performance are ensured between M1695 and the connecting CPU (or host device), as well as between M1695 and the connecting Bridge device (e.g. South Bridge).

M1695 Block Diagram



M1695 System Diagram



M1695

HyperTransport™ PCI Express™ Tunnel Chip

Features

HyperTransport™ Bus Support

- HyperTransport™ I/O Link Specification Revision 1.05 and 2.0 compliance.
- Supports all AMD K8 processors:
 - AMD Athlon™ 64, Mobile Athlon™ 64, Sempron™ Athlon™ 64 FX and Opteron™
 - Socket 754, Socket 940 and Socket 939.
- 16 x16 HyperTransport™ Bus to Host and 16 x 16 HyperTransport™ Bus to Downstream Device.
- Low signal swing: 1.2V ±0.3V.
- High frequency: 400/800/1200/1600/2000 MHz data Transfer rate. The peak bandwidth up to 8.0GB/Sec.

PCI Express™

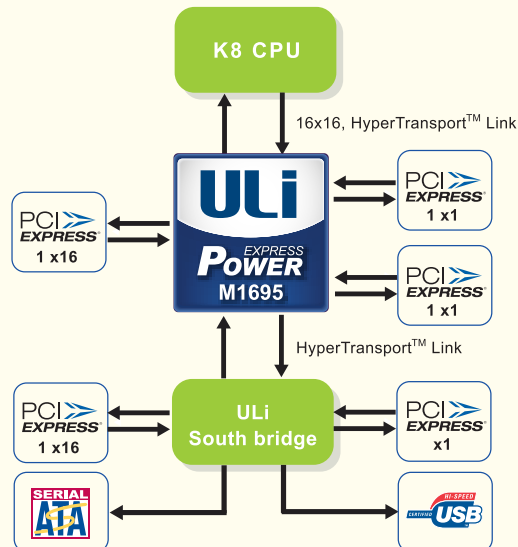
- PCI Express™ Specification 1.0a.
- PCI Express™ 1 x16 or 2 x8 for Graphics Interface
- PCI Express™ 2 x1 or 1 x4 (x1/x2/x4) for High Speed I/O devices.
- Supports Native Hot-Plug & Hot Swap.

PC 2001 Compliance

Package

- 660-ball 31mm x 31mm BGA package.

Sample System Diagram for Mainstream Application



Sample System Diagram for Workstation Application

