- PCI Express
  - Configurable as 1, 2, or 4 lanes
  - 512-byte maximum payload
  - Advanced error reporting capability
  - Supports Lane Reversal and Lane Polarity Inversion
  - End-to-end CRC check and generation
  - Up to four outstanding memory reads
  - ASPM L0s link state power management
  - Legacy interrupt signaling and MSI interrupts
  - Hot Plug support
- PCI/PCI-X
  - 32/64-bit addressing
  - 32/64-bit data
  - PCI-X operation at 50, 66, 100, and 133 MHz
  - PCI operation at 25, 33, 50, and 66 MHz
  - Up to eight outstanding memory reads
  - 4K read completion buffer
  - Four external PCI/X masters supported through internal arbiter
  - Support for external arbiter
- Other
  - Support for Masquerade mode
  - JTAG IEEE 1149.1, 1149.6
  - Support for D0, D3 hot, D3 cold power management states
  - 1.2V core power supply
  - 1.3W typical power consumption (x4 PCIe to 133-MHz PCI-X)
  - Packaged in 17x17 mm, 256-pin PBGA
  - Package pinout and footprint compatible with PLX8114 compatible with PLX8114

Benefits

  - Enhances system performance by delivering high throughput and low latency across bus interfaces
  - Simplifies system design by offering numerous programmable features
  - Minimizes system power consumption by providing comprehensive power management

Typical Applications

The Tsi384 is suited to applications that need to bridge from PCIe to downstream PCI-X and PCI devices. Its flexibility, high performance, small footprint, and low power consumption, make it ideal for a wide range of applications, including:

- Storage Area Network (SAN, RAID HBA cards)
- Network Attached Storage, Direct Attached Storage (NAS, DAS)
- Line cards and NICs

- Routers and switches
- Motherboards (server, SBC, industrial PC)
- PC adapter cards (communications, graphics, imaging, and multimedia)
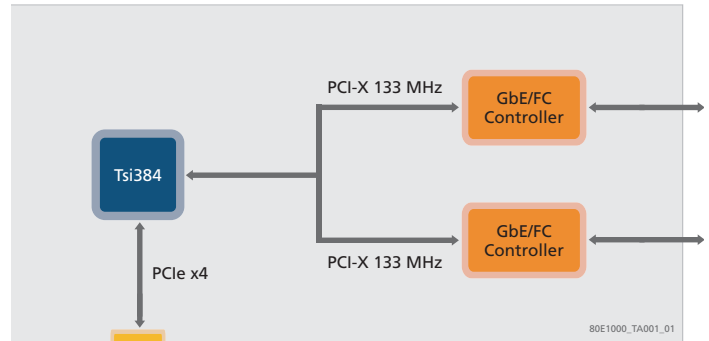- Multi-function printers
- Digital video recorders

Figure 2 HBA Card Application

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