HyperTransport Bridge Solutions

- ICs
- FPGAs
- ASICs
- IP Cores
- HTX Adapters
HyperTransport Bridge ICs

- 8131 – HyperTransport to Dual PCI-X
- 8132 – HyperTransport to Dual PCI-X 2.0
- SP1011 - HyperTransport to 64/66 PCI
- AS90L10204 - HyperTransport to PCI-X
- AS90L10208 – HyperTransport to Dual PCI-X
- PowerDrive HT7520 – HyperTransport to Dual PCI-X
- MC1695 – Cost-optimized, Tunnel-capable HyperTransport to PCIe
- K8T890 North Bridge - HyperTransport to PCIe
- InfiniPath – HyperTransport to InfiniBand
8132 - HyperTransport to Dual PCI-X 2.0

Bridge ICs

HyperTransport

PCI-X #1
64-bits @ 266MHz

PCI-X #2
64-bits @ 266MHz

PCI-X #3
64-bits @ 266MHz

PCI-X #4

Gbit Enet
SGSI

HyperTransport

8132™

8132™

8132™

8111™

IDE

AC97

ENET

USB

PCI33

VGA

LPC

FLASH

BMC

SIO
**AS90L1028** - HyperTransport to Dual PCI-X

### HT1.05 Interface
- TX PHY
- RX PHY
- Link Interface
  - Packet Generator
- Link Interface
  - Rx Buffer

### Configurable PCI Port
- 1x 64-bit, 66MHz PCI or 133MHz PCI-X 1.0b
- 2x 32-bit, 66MHz PCI or 133MHz PCI-X 1.0b

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**Integrated µP**
- Memory
  - I/O peripherals
  - Mem Ctrl
  - CPU Core
  - HT Port
  - IO control
  - Boot ROM
  - IO subsystem

**AS90L10208**
- HT Port
- PCI/PCI-X
- PCI Peripheral
- PCI X Peripheral

**Up to 29 additional Devices**
HT7520 - HyperTransport to Dual PCI-X

- 2x 64-bit, 133MHz PCI-X busses
- 800MHz, 16-Bit and 8-Bit HyperTransport Ports
- Double Hosting Support – CPU on each side
MC1695 - HyperTransport to PCIe Tunnel

- 1GHz/16-Bit HyperTransport Links
- 2 PCIe Ports
- Tunnel Functionality
- Cascading Support
- Cost Optimized
K8T890 - HyperTransport to PCIe

- 20 PCI Express Lanes
- 250MB/s bandwidth per Lane
InfiniPath - HyperTransport to InfiniBand

- Supports up to 8 Processors
- 800MHz 16-Bit Links
- 6.4 GB/s Bandwidth
- 1.32μS MPI Latency
- HyperTransport Tunneling
  - Pass-Through I/O Connectivity
HyperTransport Bridge FPGAs

- **Stratix II**
  HyperTransport to various I/Os

- **Virtex-4**
  HyperTransport to various I/Os
Virtex-4 - HyperTransport to...
HyperTransport Bridge ASICs

- **HardCopy II** - Structured ASIC
  HyperTransport to various I/Os

- **RapidChip Xtreme, Xtreme2**
  Configurable ASIC
  HyperTransport to various I/Os
HardCopy II - HyperTransport to...
RapidChip - HyperTransport to...

SPI 4

Xtreme
Xtreme2

SFI 4

PCI EXPRESS

RapidIO

InfiniBand

Serial Attached SCSI

LSI LOGIC
HyperTransport Bridge IP Core

- 800MHz 16/8-Bit Links
HyperTransport HTX Bridge Adapters

- **InfiniPath** – HyperTransport HTX to InfiniBand

- **HyperTransport HTX to 10 Gigabit Ethernet** (in process of being released)
InfiniPath HTX Adapter

HyperTransport HTX to Infiniband Server Clustering Interface

- 1.32 µs MPI latency
- 1.8 GB/s of bi-directional bandwidth
- 583 MB/s of TCP/IP throughput
- Supports MPI and IP traffic
- Supports up to 8 processors per InfiniPath HTX Adapter