Products

+ Host Bridges
+ HyperTransport Bridges
+ PCI Express Bridges
+ PCI Express Tools
+ PCI/X Bridges
+ Power Controllers
- RapidIO Switches
RapidIO Gen2
Tsi620
Tsi578
Tsi577
Tsi576
Tsi574
Tsi572
Tsi568A
Tsi564A
+ RapidIO Tools
+ VME Bridges
+ Design Services
+ Intellectual Property

Technical Briefs
+ Product Roadmaps
+ RoHS Compliance
+ Product Archive

Technology News

Tundra Semiconductor Announces RapidIO Gen2 Program
March 31, 2009

MUSILAND selects Tundra Semiconductor 's PCI Express Bridge
March 3, 2009

Tundra Semiconductor 's PCI Express Products Selected by Nortel, EFI and AXIOMTEK
February 25, 2009

Technical Support Request
Customer Support Request
Sales Network

Stay tuned for upcoming events.

Overview | Features | Applications | Resources

RapidIO Features

- 40 Gbps aggregate bandwidth
- *RapidIO Interconnect Specification (Revision 1.3)* compliant
- Low latency with cut-through capability
  - Port flexibility fulfills multiple I/O bandwidth requirements:
  - Up to four 4x mode ports or eight 1x mode ports
  - Port frequency configuration to 1.25, 2.5, and 3.125 Gbits/s
- Support for mixed speed and width configurations
  - Low power
  - Programmable SerDes
  - Configurable on Port width and speed
  - Port power down
- Further power savings from Tsi564A
- High performance hardware multicast provides instantaneous packet replication on any number of ports
  - Error management extensions
- Proactive issue notification of endpoints connected to switch
  - Integrated high-speed, full-duplex SerDes with 8b/10b encoding
  - Receiver equalization, transmit pre-emphasis, transmit voltage swing
  - IEEE 1149.6 AC JTAG support
- Lane swap to ease signal layout routing
  - Full duplex, line rate termination, non-blocking fabric
  - First Come First Served, SP1 and SP2 scheduling algorithms , supporting traffic shaping per ingress port based on board and system level traffic models
  - Performance monitoring on individual ports
  - Programmable buffer management to ensure dedicated bandwidth for high priority packets
  - Provisions to eliminate low priority packet starvation
  - Low latency through packet cut-through
- Prevention of head-of-line blocking
- Supports packet routing tables for 64,000 endpoints
- Multicast Event Control Symbol

Other Device Capabilities

- I^2C Interface
  - Master and slave
  - Configuration through register initialization
- Hot Swappable ports
  - Enables use in field replaceable blade applications
- Small 21 x 21 mm package

Block Diagram

Ordering Information

Product Number	Temperature	Package	Pins
Tsi574-10GCL	Commercial	FCBGA	399
Tsi574-10GCLV	Commercial	FCBGA (RoHS)	399
Tsi574-10GIL	Industrial	FCBGA	399
Tsi574-10GILV	Industrial	FCBGA (RoHS)	399