

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

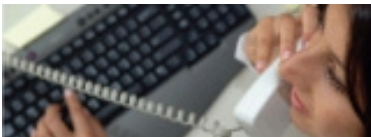
Tsi572

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 cutthrough 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 highspeed, full-duplex SerDes with 8b/10b encoding
 - ? Receiver equalization, transmit preemphasis, 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 cutthrough
- ? Prevention of headof-line blocking
- ? Supports packet routing tables for 64,000 endpoints
- ? Multicast Event Control Symbol

Other Device Capabilities

- ? I²C 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