HyperTransport™
Mezzanine Connectors
Applications
HT Mezzanine Connectors Target Markets

HPC - Data Center - Embedded

- Servers and Blade Servers
  - CPU-to-Special Function Mezzanine Card Links
  - Mezzanine Card-to-HT Cable Links
  - MPU Expansion Modules
  - Modular HT Functionality
    - NIC, Accelerators, Specialty Processors
    - Universal MB Designs
    - Easy In-Field System Upgrading

- Server Clustering
  - CPU-to-NIC Links

- Embedded Systems
  - Maximized HT Modularity
    - Multiple Stacking Height Options
HT Mezzanine Connectors Applications

Maximized System Functions Modularity

8-Bit / 16-Bit HT Link
HT Mezzanine Connector Applications (cont.)

Flexible In-System Interconnects

- CPU-to-Internal-Subsystem Direct HT Links
- Excellent Signal Integrity No PCB Signal Degradation
- PCIe Slot Used Only for Power Feed and Mechanical Support
- CPU Socket Adapter Compatible with All MBs
HT Mezzanine Connectors

In-System and System-Wide HT Empowerment

- Dovetail with High Node Count Spec
- Vast System Modularity Latitude
  - For Systems and Subsystems
- HT 3.1 Performance
- Compact, High Density Design
  - Easy Product Integration
- Specific HT Signal Allocation
  - Optimized Signal Integrity and Routing

Rich Physical Layer
HT Connectivity

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Mezzanine Connectors
Features
HT Mezzanine Female Connector

- HT 3.1 Clock Rates Support
- Easy to Route 1.27mm Pitch
- 4 Rows x 40 Pins Rows for 2x 8 or 1x 16-Bit HT Link
- 2x 40-Pin + 2x 40-Pin Row Layout Eases Signal Routing
- HT Signals, Power Pins, Plus 10 User-Available Pins
- Compact - 56.6mm Length, 5.6mm Width
- BGA Soldering
- Ruggedized
- Multi-Standard
- In Volume Production

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>7mm Stack Height</td>
<td>Rated @ +95 Insertion Loss</td>
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<tr>
<td>Single-Ended Signaling</td>
<td>2.5 Gb/s / 10 Gb/s</td>
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<tr>
<td>Differential Pair Signaling</td>
<td>10.5 Gb/s / 21 Gbps</td>
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<tr>
<td>Performance data for other stack heights and complete test data available at <a href="http://www.samtec.com/SEAF">www.samtec.com/SEAF</a> or contact <a href="mailto:eng@samtec.com">eng@samtec.com</a></td>
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CURRENT RATING

<table>
<thead>
<tr>
<th>Ambient Temp</th>
<th>SEAM/SEAF</th>
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<tbody>
<tr>
<td>+20°C</td>
<td>2.3A</td>
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<tr>
<td>+40°C</td>
<td>2.0A</td>
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<tr>
<td>+60°C</td>
<td>1.75A</td>
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<tr>
<td>+95°C</td>
<td>1.14A</td>
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Up to 500 Pins

Open Pin Field Array SEAF Series

Lead-Free Solder Terminations ( Tin-Lead also available)
HT Mezzanine Male Connector

- HT 3.1 Clock Rates Support
- Easy to Route 1.27mm Pitch
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- HT Signals, Power Pins, Plus 10 User-Available Pins
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- PCB press Fitting
- Ruggedized
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HT Mezzanine Connector Stand-Offs

- Satisfy Any Board Stacking Requirements
- Choice of Forms and Dimensions
- In Volume Production