XL8000

12U NEBS compliant ATCA Chassis



Kontron's newest generation Advanced Telecom Computing Architecture (ATCA) 12U platform features 14 board slots on a dual star backplane providing high computing density for carrier-grade communications applications. Compliant with AdvancedTCA specifications, it differentiates itself by offering innovative and cost effective system management and Field Replaceable Units (FRU). It also features a very convenient front and rear cable management system. The platform includes dual redundant Fabric switches and ATCA high-performance Low Voltage Intel® Xeon™ processor-based boards.

- 12U height, 19" Rackmount
- Cost effective riveted steel construction
- 200 Watts/slot cooling
- Two Dual Xeon ATCA processor boards and Dual redundant ATCA Fabric switches
- Centralized IPMB for cost effective monitoring of fans, sensors and power entry modules

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Specifications
... learn about the tremendous feature set

Card cage

The XL8000 design provides superior rigidity, critical for supporting the weight of large ATCA boards especially during insertion/ extraction process.

- 14 8U 6HP 280mm boards in front, 14 8U 6HP 70mm boards in rear
- Features rugged/rigid card guide section designed to accommodate weight of high performance ATCA boards;
  - Card guide tooling designed to reduce tooling marks and reduce number of fabrication steps
  - Card guides include tin plated ESD clips
- Rugged and cost effective steel riveted construction
- Filtered dual hot swappable DC power inputs;
- Optional safety ground contact (30A) for all front and rear boards

Cooling

The 12U height offers a dense packaging design while providing maximum cooling opportunity (intake/exhaust) .

- "Push" cooling scheme
- Three cost effective hot swap fan trays, each with split air intakes:
  - Each fan tray has two high performance 270m3/h (160 CFM) fans with excellent impedance profiles
  - 6 independent air inlet paths
  - Provide high level of redundancy
  - Superior failure mode performance
  - Features low cost design as the trays do not include fan controller electronics – only the DC /DC converter for power and the FRU eeprom
  - Superior MTBF due to the trays location on the intake side instead of the hotter exhaust side (a higher temperature can decrease the lifetime of the fan by a significant percentage)
  - Mounting of fans on fan tray designed for easy removal/replacement in the event of failure
- Chassis dissipation of 2800 watts (14 slots x 200W)
  - Cooling scheme supports 200 watts per slot (front), assume 5-10 watts per slot for passive RTM cooling
- Fan trays location (below the card cage) enable direct connection to the backplane, resulting in simplified wiring and lower cost
- Easily replaceable air filters
- Full thermal analysis performed (Flo Therm models available upon request)

Backplane

- Dual Star, or Dual-Dual Star 14 slot backplane design
- Backplane layout is split into the top portion (ATCA layout) and the lower portion that provides the interface for fan trays and power entry modules.
- Radial IPMB is standard although the backplane can be factory configured with bussed IPMB for applications with on blade shelf management.
- Includes alignment pins on backplane as defined in ATCA specification
- Includes connection provisions for power, shelf manager/controllers, fan trays, and power entry modules

Management

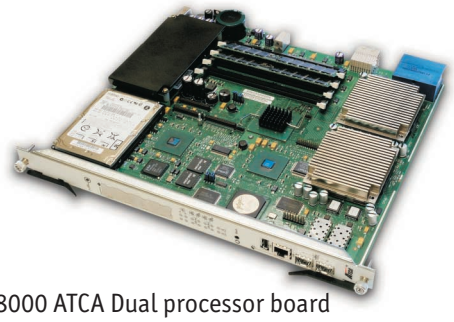
The redundant boards will mount in what is essentially a 15th slot – with approximately 3HP of space. These 2 slot can be utilized for either the two new low profile Integrated Shelf Manager/Fan Controller boards or for the ICC boards (IPMB Chassis Controller boards which provide only fan monitoring/control, PEM and sensor monitoring).Telco alarm board mounts above the Shelf Manager slot and provides centralized alarms

Shelf manager:

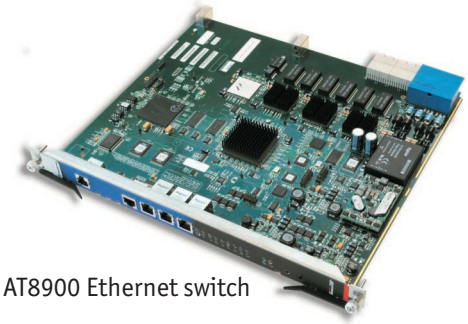
- Form factor approx. 2.5U x 280mm deep – new slim profile to install in 3HP slot at end of chassis
- Cost effective integrated Shelf Manager/fan controller with option for redundancy with second Shelf Manager/fan controller
- Supports hot swap of the controller boards for improved failure mode performance
- Incorporates circuitry for fan control and monitoring, power entry module monitoring, sensor and FRU inputs; this cost effective approach eliminates the requirement for separate IPMC's throughout the chassis and for separate fan controller boards; eliminates redundant circuitry /interface requirements

Accessories

- 8U 6HP 280mm Air Baffle/Filler Panels for empty front card cage slots (panels include gasketing, mounting hardware, and alignment pin) made of stainless steel
- 8U 6HP 70mm Air Baffle/Filler Panels for empty RTM slots



AT8000 ATCA Dual processor board



AT8900 Ethernet switch

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