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DATASHEET

FEATURE SUMMARY

Promentum ATCA-6006

5U 6-Slot ATCA Shelf with Optional 1U AC Power Module

AdvancedTCA® blades pack a lot of performance and many applications do not require the number of slots that a "big-iron" 12U/14U shelf offers. The six slots provided by the ATCA-6006 5U shelf supports 4 node slots or 5 nodes slots when configured with one Switch/HUB blade for semi-redundant operation; ample for many applications. The ATCA-6006 compact size and low weight makes it easy to slot in an existing rack to add functionality to an existing system with state of the art ATCA technology or to address remote field/edge applications where large 12U/14U systems are not practical due to space constraints nor necessary from a functionality point of view.

PRODUCT DESCRIPTION

The ATCA-6006 is a 5U ATCA shelf with 4 node slot & 2 hub slots. Blades lie horizontally and are cooled by two hot-swappable fan units on either side of the shelf, working in a push-pull arrangement to draw air across the blades from right to left. The backplane is configured with the two hub slots on the bottom and 4 node slots above them. Backplane is a full mesh, supporting dual-star fabric (base & fabric) with dual IPMB busses for management. The ATCA-6006 accommodates 6 RTMs (Rear Transition Modules) which are cooled by fans within the PEMs (Power Entry Modules). The two – 48V DC PEMs plug directly into the backplane from the back of the shelf.

REDUNDANCY FEATURES FOR 5x9s HIGH availability

The ATCA-6006 is designed for central office environments. Redundancy is inherent in the core design, including power, control, and connectivity. Dual redundant – 48V DC power is provided as required by the PICMG 3.0 specification.

SHELF MANAGEMENT

The ATCA-6006 Shelf Managers (SM) are integrated in the switch blade to reduce cost and space. The role of the SM is to monitor and control the shelf state, the presence and health of the shelf's FRUs as well as blades that may be inserted into the shelf. The SMs arbitrate which blade is the Active Shelf Controller at power-up and from then on the Backup SM monitors that the Active SM is managing the system as well as updating its registers to take over if necessary. The ATCA-6006 can be operated with one shelf manager for cost sensitive application where total redundancy is not necessary. Failure of the SM in a non-redundant mode will cause the fans to turn on at full-speed to insure that the system continues operating safely.

MANAGED COOLING SUPPORTING 200W to each front blade and 20W to each RTM

The ATCA-6006 provides a sophisticated thermal solution to meet the diverse requirements of the OEM common platforms. With two IPMI hot-swappable managed fan modules controlled by the SM, system noise is kept to a minimum while insuring that the shelf and blades are cooled sufficiently. RTMs are cooled by managed fans within PEMs allowing cooling for up to 20W per RTM. Fans run at maximum speed the moment that they are not controlled, thus insuring integrity of the system. Both rear and front fans run in a push-pull arrangement, drawing air across the board from right to left per ATCA specification. Air is filtered by a filter element that can be removed during operation for cleaning or replacement.

FLEXIBILITY

The ATCA-6006 shelf provides ample flexibility to allow initial system deployment with current technologies and in-field upgrades in the future. The backplane supports the full ATCA mesh, a super-set of dual-star base and fabric interfaces, with signal speeds up to 3.125 Gb/s. Thus, an initial deployment may utilize only the base interface and a subsequent upgrade may add modules supporting the fabric interface without the need to change the shelf or backplane. The shelf architecture enables OEMs to address multiple rack configurations – 19", 23" and 535mm.

The backplane includes inter-slot update channels, synchronization clock buses, and metallic test & ringing signals.

Promentum ATCA-6006 Specifications

FEATURE	FUNCTION	DESCRIPTION
PHYSICAL	Dimensions	8.72"H x 17.625"W (19" rack mount) 17.877" Depth
	Weight	41 LBS
	Compliance	PICMG 3.0 R2.0
BACKPLANE	Signal bandwidth rating (differential pairs)	Base Fabric: 1000 Base-T, Fabric Channels-3.125 Gbps per differential pair
	Node slots	4 (Base Fabric)
	Hub slots	2 (Base Fabric), slot 1 & 2
	Fabric interconnect	4 X Mesh
	Update channels	Logical slot 1 to Logical slot 2 and Logical slot 4 to Logical slot 5
	IPMB support	Full IPMB support with RadiSys shelf management (integrated in switch)
POWER	DC Input (Nominal)	-48 VDC/-60 VDC
	Protection	Independent, user-resettable input power protection provided on each PEM
	Redundancy	Dual redundant PEM modules, either capable of supplying 100% of shelf power
ACCESSIBILITY	Front	Fan Modules, Blades, Air Filter
	Rear	PEMs, RTMs
COOLING	Num. of fans/blowers	2 front modules with 6 axial fans each for front slots and 2 rear modules (integrated with PEMs) with 2 axial fans for RTM slots.
	Redundancy	N+1 (i.e., any one fan can fail with no service degradation)
	Fan speed	Variable speed under shelf management control
	Cooling capacity	200W per slot, 1200W per shelf
SHELF MANAGEMENT	Shelf Manager	IPMI 1.5 Shelf Manager integrated in RadiSys ATCA-2xxx Switch.
	Managed IPMI Peripherals	One air filter sensor, shelf temperature sensors (inlet, outlet), shelf FRU EPROM
ALARM I/O BOARD	Electrical/Mechanical Placement	Dual redundant Alarm I/O Modules accessible from chassis front
	Alarm I/O interfaces	15-pin DA-15P connector. Supports 4 outputs (Major, Minor, Critial, Power) and 2 inputs

		(Major & Minor Reset).
	LEDs	Critical (Red), Major (Red/Yel), Minor (Yel), Power Good (Grn)
	Audible alarm	NA
REGULATORY	Safety	UL, cUL, TUV & CE
	EMC	Designed to meet FCC class A
	Environment	Compatible with NEBS and ETSI
	Temperature	Operating temperature: Normal +5 o C to +45 o C
		Operating temperature: Short term -5 o C to +55 o C
WARRANTY	-	Two Years Limited

Ordering Information

Call for order configuration, pricing and availability.