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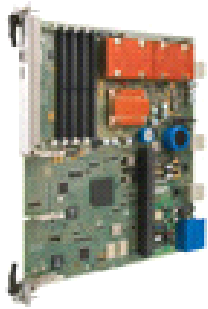
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Promentum ATCA-4300

Dual-core Dual Xeon Compute Processing Module

The ATCA-4300 is a high performance single slot AdvancedTCA compute module. It is ideal for Intel Architecture (IA) based compute intensive applications in IMS (CSCF, Application and Media Servers), IPTV and other network elements such as RNC/BSC and Media Gateways. The ATCA-4300 enables highest IA processing density in a single AdvancedTCA slot. It provides a rich set of configurations through its AMCs, fabric connectivity, etc., to target a multitude of application requirements. The NEBS compliant design with rear I/O capability makes it ideal for carrier grade uses in compute and I/O configurations.

FEATURE SUMMARY

- Most processing power of Pentium-M in a single slot. Reduces \$/slot thus addressing maximum subscribers in a single slot
- Flexibility in configuration and design enables reconfiguration and improves re-use of development investment
- Powerful storage functionality built in to enable onboard SAS HDD AMCs with fully redundant at a module level

APPLICATIONS & REQUIREMENTS

The next generation communication infrastructure is a packet oriented one in which applications or services such as IMS, IPTV, Radio Network Controllers, VoIP Media Gateways, VPN, speech processing and a multitude of media servers will co-exist in a seamless, unified network. Other applications include SS7 signaling gateways, traffic management/shaping blades, switching and advanced call center applications. The subscriber and traffic growths warrant highest amount of processing densities per slot in order to meet the \$/slot and the MIPS/slot growth targets for these infrastructure elements. Additionally, the designers are seeking flexibility in design to use it as a common processing module across multiple applications to gain economies of scale and re-use in their architecture. Such a requirement demands I/O capability through AMCs with clocking support, front and rear I/O and flexibility in fabric connectivity.

PROCESSING DENSITY

With dual, dual-core processors and two AMCs for co-processing, I/O and storage, the ATCA-4300 enables the highest processing density per slot in AdvancedTCA. The ATCA-4300 is fully compliant with PICMG 3.0 and PICMG 3.1 for use with Ethernet base interface and fabric interface systems as well as Fibre Channel and SAS storage systems. It utilizes two Dual-Core Intel Xeon LV/ULV processors and the Intel E7520 chipset with up to 8GB of DDR2-400 SDRAM with ECC. Up to 16GB of memory is possible with higher density memory devices. It incorporates two mid-size AMC sites for flexibility allowing the use of a variety of AMC modules such as co-processors, disk, LAN or WAN adapters. The AMC sites can also be configured as a Double mid-size AMC site. For high-speed storage area network access, the board supports a dual star Fibre Channel interface compliant with the PICMG 3.1 Option 4 or 5 specification. The module also optionally supports a local and remote SAS interface enabling SAS disk support via an AMC disk module.

CONFIGURATION FLEXIBILITY

The ATCA-4300 and its configuration capability make it versatile for multitude of applications. The configuration capabilities include:

- Number of processors – one or two dual-core processors
- Memory configurations for DRAM and Flash – Up to 16 GB through 4 DIMM sockets
- PICMG 3.1 Fabric configurations supporting 1, 2 or 3 GbE connections
- AMC configurations including fabric connectivity and storage
- Network Timing Subsystem for clocking support for WAN I/O AMCs
- Storage configurations – Optional Fibre Channel, SAS on board and off board with rear I/O connectivity

The functionality of the ATCA-4300 can be configured through the use of two AMC sites, eliminating the need for additional slots. Optional AMC modules include SAS and SATA storage, Encryption Co-Processors, LAN and WAN I/O adapters. The AMCs also have flexible fabric connectivity. The board design incorporates an onboard cross-connect to enable multi-lane fabric connectivity. The cross connect allows AMC Ethernet ports to directly connect to fabric channels 1 & 2 (for use when using multiple 1 GE fabric), or Ethernet channels to processor. PCI Express to the processor is always available.

For applications requiring local storage, the ATCA-4300 can accommodate an optional SAS or SATA based AMC. The SAS connectivity is designed to make use of Rear Transition Module to provide redundancy through cross cabling to another compute module in an adjacent slot. Such cross cabling enables redundancy in storage through dual-hosted disk drives.

REAR TRANSITION MODULE

The ATCA-4300 is designed for carrier grade applications demanding rear I/O connectivity. It includes an independently hot swappable RTM for rear I/O connectivity. The RTM includes standard LED support and connectors for RS-232, SAS and alarm I/O.

SYSTEM MANAGEMENT, RELIABILITY AND HIGH AVAILABILITY

The ATCA-4300 is designed for High Availability (HA) solutions providing 99.999% of up time. An Intelligent Platform Management Controller (IPMC) provides system management functionality compliant with the IPMI specification.

The IPMI support includes standard e-keying and other configuration supported by the module.

SOFTWARE SUPPORT

The ATCA-4300 is compatible with Carrier Grade Linux. It supports both Windriver PNE LE 2.x and Montavista 4.x carrier grade Linux versions. Support for other Linux versions is available through RadiSys service options.

Promentum ATCA-4300 Specifications

FEARTURE	FUNCTION	DESCRIPTION
PHYSICAL	Dimensions	8Ux6HPx280mm ATCA, single slot
	Compliance	PICMG 3.0, PICMG 3.1, AMC.0, AMC.1, AMC.2, AMC.3
PROCESSOR SYSTEM	CPU	1 or 2 2.0GhzDual-Core Intel Xeon LV Processors (Sossaman)
	Cache	Integrated 2MB L2
	Chipset	Intel E7520 with 6300ESB
	FSB	667MHz
MEMORY	Technology	Registered DDR2400, with ECC
	Capacity	8GB maximum (16GB possible with higher density memory)
	Sockets	Four 240-pin DIMM
ETHERNET BASE	Interface	Dual 10/100/1000BaseTX
	Controller	Intel 82571EB
ETHERNET FABRIC	Fabric (PICMG 3.1)	Options 1, 2, 4 and 5
	Controller	Intel 82571EB
FIBRE CHANNEL	Interface	Dual 2.125 Gbps (PICMG 3.1 Option 4 compliant)
	Controller	LSI1068
AMC SITES	Site 1	Single Mid-Size, AMC.0 compliant. AMC.1 Type 4 x4 PCI Express to E7520, AMC.2 Type E2 dual GbE to Fabric Interface, AMC.3 SAS or SATA to SAS controller.
	Site 2	Single Mid-Size AMC.0 compliant. AMC.1 Type 4 x4 PCI Express to E7520, AMC.2 Type E2 dual GbE to Fabric Interface, AMC.3 SATA to 6300ESB SATA controller.
HARD DRIVE INTERFACE	Interface	SAS and SATA
	Controller	Integrated
	Connector	Per AMC.3
FRONT PANEL I/O	USB	Two Type A connectors
	Serial	RJ-45, RS-232
	Ethernet	RJ-45, 10/100/1000BaseT
	Reset	Recessed push button

RTM I/O (OPTIONAL)	Connectors	RS-232 (RJ-45), SAS and Alarm I/O
	Hot Swap	Supported
	FRU ID	Independent FRU ID
	LEDs	Hot Swap (Blu), Power Good, and Fault
CONNECTORS, BACKPLANE	Power, IPMB	ATCA Zone 1, P10 connector
	Ethernet Base Fabric	ATCA Zone 2, J23 connector
	Ethernet Fabric	ATCA Zone 2 J23 connector
	FC Fabric	ATCA Zone 2, J23 connector
	Synchronization Clock	ATCA Zone 2, J20 connector
	Update Channel	ATCA Zone 2, J20 connector
LEDS	-	Hot Swap (Blu), OOS (Red/Yel), Power Good (Grn), Blade Status (Tri)
POWER	-	200 W (maximum)
ENVIRONMENT	Ambient Temperature	0° – 55°C (operating), -40° – 70°C (non-operating)
	Relative Humidity (non-condensing)	5 – 90% (operating), 5 – 90% (non-operating)
REGULATORY	Safety	UL/EN/IEC 60950-1, CSA 22.2
	EMC	FCC Part 15, Class B, EN 55022: 1998, Class B
		EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
WARRANTY	-	Two years, parts only

Ordering Information

Call for order code configuration, pricing and availability.



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