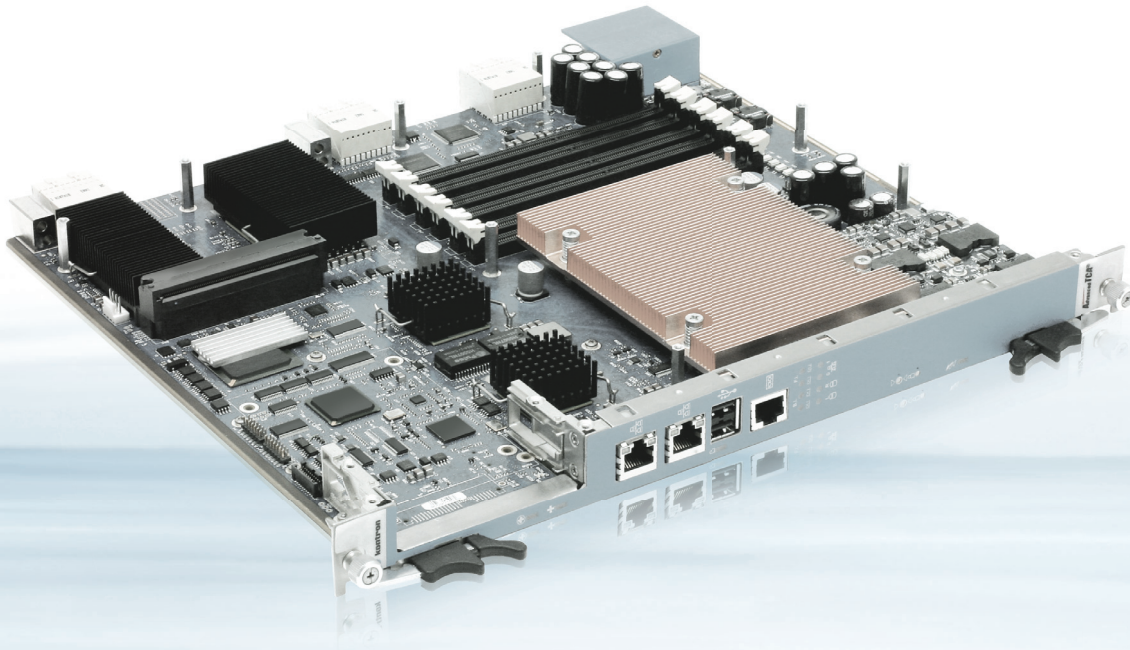


AT8050



ATCA NODE BLADE - TWO FEATURE-RICH PROCESSOR OPTIONS: SINGLE Intel® Xeon® Six-Core 5600 SERIES/Quad-Core 5500 SERIES

- ▶ optimized for virtualization
- ▶ 8 threads (5500) to 12 threads (5600)
- ▶ support for up to 48 GByte on 3-channels, DDR3 1066 MHz, ECC, registered SDRAM on 6 DIMM sockets total
- ▶ 1 X Mid-size AdvancedMC bay
- ▶ Dual 10 Gigabit on Fabric (PICMG 3.1, Option 9)

POSSIBILITIES START HERE



AT8050

ADVANCEDTCA / ADVANCEDMC OPEN MODULAR SOLUTIONS

The Kontron AT8050 AdvancedTCA processor board redefines the design possibilities with a new Intel® microarchitecture processor, which offers greater efficiency and performance. The AT8050 is a single-socket design with two feature-rich processor options: an Intel Xeon Quad-Core 5500 (45 nm) processor; or an Intel Xeon Six-Core 5600 (32 nm) processor. Both feature an Integrated Memory Controller, Turbo Boost Technology, Intel® QuickPath interconnect, and Intel® Hyper-Threading Technology (SMT). The overall perfor-

mance of the Kontron AT8050 will handle even the most demanding storage, medical imaging, security, and communications infrastructure applications. With the available AdvancedMC bay, wireless/telecom equipment manufacturers can add multiple functionality with an assortment of Kontron AMC modules such as the Kontron AM42xx series of Intelligent packet processor AMC modules, designed with the OCTEON Plus 5650 Network Service MIPS Processor from Cavium Networks.

► TECHNICAL INFORMATION

PROCESSOR	Single Intel® Xeon® Six-Core 5600 (12 MByte Cache) Processor Single Intel® Xeon® Quad-Core 5500 (8 MByte Cache) Processor Passive heatsink Virtualization Technology supported
CHIPSET	Intel® 5520 I/O Hub (36D) and I/O Controller Hub (ICH10R)
BUS INTERFACE	CPU QuickPath Interconnect delivering up to 5.86 GT/s/lane PCIe
EXPANSION SLOTS	1 Mid-size AdvancedMC bay x4 PCI Express 2x1000Base-BX Ports common option, 4x1000Base-BX in fat pipe Dual port SAS/SATA
SYSTEM MEMORY	Up to 48 GByte on 6 latching sockets of VLP DDR-3 1066 MHz RDIMM SDRAM ECC and S4EC/D4ED support 3 DDR-3 channels; 2 DIMM per channel
FLASH MEMORY	Two redundant flash BIOS (Field software upgradeable) Roll back functionality controlled by IPMC
STORAGE	4 ports SAS/SATA available using RTM with the LSISAS1064e USB SSD Flash daughter board (4 GByte minimum with many available sizes) iSCSI via 82599 fabric interface; SATA AMC with ICH10 controller
I/O	Front Panel: Serial (RJ-45), 2 i82576 Management LAN (RJ-45), 2 USB PCIe Gen2 (5 Gb/s) in Update Channel (AMC Carrier ATCA blade) Intel i82599 10 Gb/s or 1 Gb/s Ethernet Controller to Fabric Interface Two Intel i82576EB 1 Gb/s to the Base Interface Synchronisation Clocks Interface support
RELIABILITY	MTBF: > 105 000 hours @ 40° C/104° F (Telcordia SR-332, issue 2); no hard-disk
SAFETY / EMC	Safety: CB report to IEC 60950-1: 2005, CE Mark to EN 60950-1:2006, meets or exceeds UL/CSA 60950-1; EMC: FCC Part 15, Class B; CE Mark to EN 300 386, EN 55022 and EN 55024; meets GR-1089 (NEBS)
BOARD SPECIFICATIONS	PICMG 3.0R3 / 3.1 Option 9, Option 2 PICMG AMC.0R2 / AMC.1 Type 4/ AMC.2 Type E2 & Type 4 compliant/ AMC.3 PICMG HPM.1; IPMI 2.0
TARGET CERTIFICATIONS	NEBS Level 3 (designed for); CP-TA TPM 1.1
RTM	Hot Swap SAS/SATA Hard Disk; 2x USB, 2x SFP, SAS controller; PCI Express Hot Plug; Serial RJ-45; and external SAS connector

► TECHNICAL INFORMATION

BIOS		<p>AMI BIOS Warm reset support with memory protection for post-mortem analysis Save CMOS in non-volatile memory option Boot from Ethernet PXE (Base and Fabric interfaces and management Lan) Boot from Ethernet iSCSI (Base and Fabric interfaces) Boot from SAS; and boot from USB 2.0 (Floppy, CD-ROM, Hard Disk) Diskless, Keyboard less, and battery less operation extensions System and LAN BIOS shadowing Robust BIOS flash Update with rollover capability (HPM.1); Fail safe field updateable BIOS Advanced Configuration and Power Interface (ACPI 1.0, 2.0 & 3.0) Console redirection to serial port (VT100)with CMOS setup access, and SOL (Serial over LAN) Event (correctable/uncorrectable ECC, POST errors); log support to IPMC</p>
OS COMPATIBILITY		Red Hat Enterprise Linux V.5.4, Wind River PNE Linux 2.0
IPMI FEATURES		<p>Management Controller compliant IPMI v2.0 and design to meet CP-TA TPM v1.1. Remote control capability (power on-off /clean shutdown/warm reset/cold reset) via any IPMI channels including LAN when the payload power is off Full speed 115200 bps Serial Over LAN (+LAN access to BIOS menu setup) and IPMI Over LAN (IPMI v2.0) always available Serial data caching and replay to ease software application troubleshooting and post mortem analysis BIOS Post Code error sent to shelf manager System Event Logging Configurable automatic "clean ACPI shutdown" policy on disk storage deactivation (AMC or RTM) Full standard PCIe Hot Plug operation embedded with PICMG AMC/RTM activation Robust IPMI firmware Update with rollover capability, without any payload impact (HPM.1) Override configuration for activation of the board/AMC/RTM without Shelf Manager Intervention</p>
SUPERVISORY		<p>Supports a system management interface (KCS interrupt driven) via an IPMI V2.0 compliant controller Standard IPMI Watchdog for all CPU running phase (BIOS execution / OS loading and running) IPMI Hardware system monitor (power/voltages), memory and all critical components temperature is monitored Extensive sensors monitoring (around 100 IPMI sensors) and event generation base on thresholds and discrete reading</p>
WARRANTY		Two years limited warranty
POWER REQUIREMENTS		<p>Intel Xeon 5500: 120 W* -38 V @ -72 V with 12 GByte of memory, no RTM & no AMC. Max of 225 W * The power consumption will vary depending on your product configuration (AMC, RTM & extra memory)</p>
ENVIRONMENTAL	<p>TEMPERATURE* HUMIDITY*</p> <p>SHOCK* VIBRATION*</p>	<p>Operating 0° C to 55° C / 32 to 131° F 5 % to 93 % @40° C / 104° F non-condensing 4 000 m / 13,123 ft 5-200 Hz. 0.2 G, each axis</p> <p>Storage and Transit -40° C to 70° C / -10 to 158° F 5 % to 95 % @40° C / 104° F non-condensing 15 000 m / 49,212 ft 5 Hz to 20 Hz @ 1 m2/s3 (0.01 g2 /Hz) (flat) 20 Hz to 200 Hz @ -3 dB/oct (slope down)</p>
AIRFLOW		Chassis CP-TA Class B.4

* Designed to meet or exceed.

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