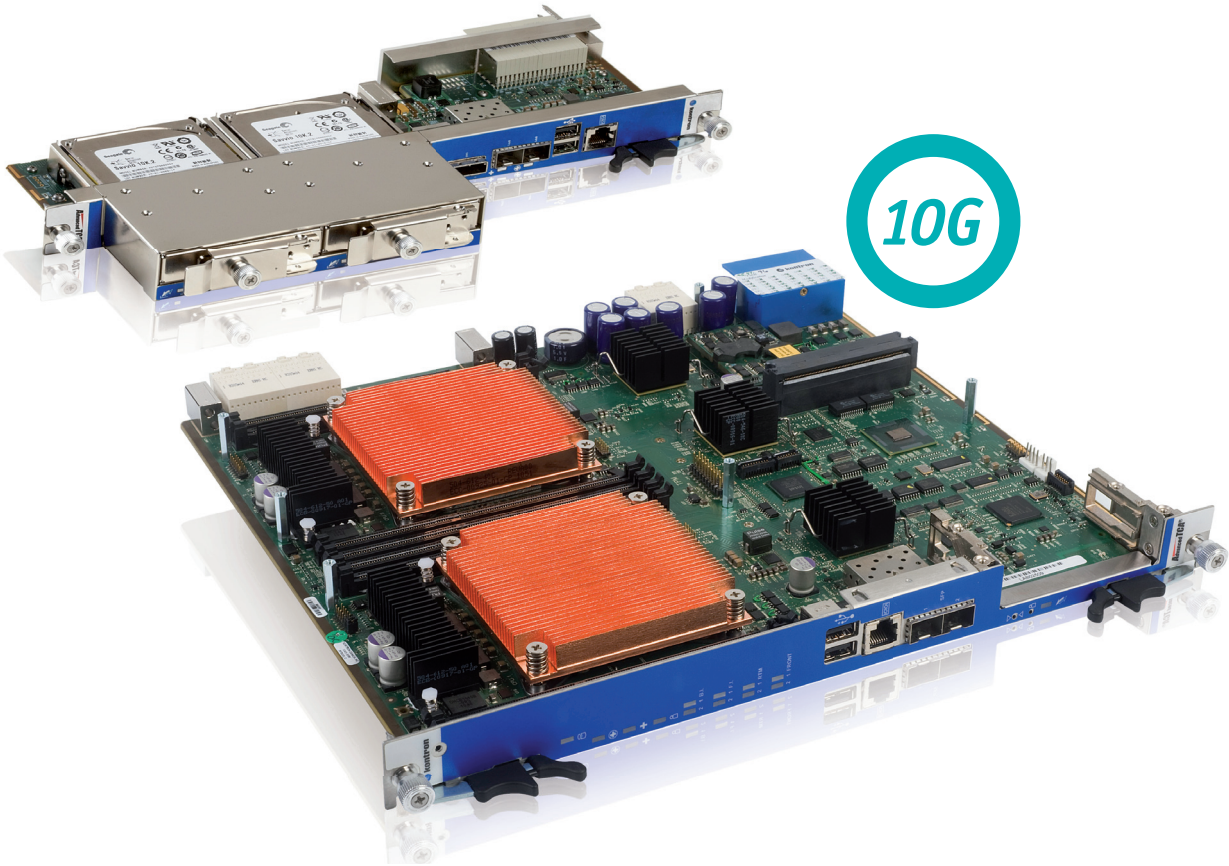
» AT8060 «



Dual (up to) 8-Core Intel® Xeon® Processor E5-2600 Family

- » New 32nm multi-core Intel Xeon processor with high bandwidth, low latency, bi-directional ring interconnect for faster access to 20MB multi-banked last level cache; Hyperthreading (32 threads total)
- » Dual 8GT/s QPI interfaces between processors for lowest PCIe/memory latency
- » Total of 128GB Memory (Up to 64GB via 4 independent DDR3 channels per CPU)
- » Kontron Active Power Management via Power Node manager
- » 1 X AMC bay with PCIe x8 Gen2 + SATA connectivity
- » Rear Transition Module RTM8063 with 2 hot swap 2.5'' SAS/SATA hard drives

AT8060

AdvancedTCA Multicore Processor Blade + RTM
Increased Performance, Virtualization, Power Management

This is a sixth-generation Intel processor-based ATCA processor blade from Kontron and accommodates an AMC slot in conjunction with a dual socket, 8-core per processor approach. This enables further customization by populating the blade with other specialized AMCs including packet processing and storage modules.

The selection of the Intel® E5-2600 processor family will prove to be the best combination of performance, power efficiency and cost for numerous virtualization-optimized and high bandwidth network applications designed by Telecom equipment manufacturers (TEMs) for 4G LTE, IPTV/ content delivery and carrier cloud computing networks.

Telecom, network and broadcast equipment vendors seeking new high performance system level designs will appreciate the boost in dual-socket, 8-core processing power complemented by new value-added, intelligent features.

This includes the new Kontron Active Power Management, a software interface for clients to intelligently pre-set and regulate the processor power settings on its AdvancedTCA® processor blade via the Intel® Node Manager embedded in the Intel® Xeon® processor E5-2600 family.

Kontron has developed Active Power Management, a software interface for clients to intelligently pre-set and regulate the processor power settings on its AdvancedTCA® processor blade via the Intel® Node Manager embedded in the Intel® Xeon® processor E5-2600 family. The Active Power Management fully integrates existing Kontron Management Solutions and is accessible using known standards such as IPMI and PICMG® interfaces. It allows dynamic power monitoring, power capping controls, and power threshold alerting, thus enabling platforms to achieve maximum performance and power for a single node.

For supplemnetary storage, Kontron also introduces the RTM8063, a rear transition module built with 2 hot swap 2.5'' SAS/SATA hard drives

Technical Information

Processor	Dual (up to) 8-Core Intel® Xeon® Processor E5-2600 Family; Passive heatsink
	Virtualization Technology supported; Intel TurboBoost
	Data Direct I/O Technology (Intel® DDIO) to reduce memory accesses from I/O on local socket and speed up processor data transfers. Security features include Execute Disable (XD) and Intel® Trusted Execution Technology (Intel® TXT) for malware resistance, and Intel® AES New Instructions for data and asset protection.
Cache Memory	High bandwidth, low latency, bi-directional ring interconnect allows faster access to 20MB multi-banked last level cache
Chipset	Intel® C600 Chipset
Bus interface	Dual up to 8.0GT/s QPI interfaces between both processors for lowest PCIe and memory latency
Expansion slots	1 Mid-size AdvancedMC bay with PCIe x8 Gen2 + SATA connectivity
System Memory	Total of 128 GB Memory, 4DIMMS per processor (Up to 64 GB across 4 independent DDR3 channels per processor)
Flash Memory	Dual eUSB flash drive supported are 16GB or more capacity
	Automatic BIOS settings content backup in flash memory
	128kByte flash memory is connected to Intel Dual 10GB controller to store the iSCSI boot firmware
Storage	Dual Hot-Swap SAS HDD via Rear Transition Module, RTM8063
	Support for SATA GEN1 (1.5Gb/s), and GEN2 (3Gb/s) on the AMC storage interface
I/O	Front Panel: Two SFP connectors to SerDes Ethernet interfaces of Quad port Ethernet controller, Serial (RJ-45) for RS-232 serial interface, 2 USB
	Base Interface: Two 10/100/1000Base-T interfaces are provided by the 82576 controller
	Fabric Interface: Both 82599 interfaces are configurable as 10Gb XAUI (10GBase-KX4) or 1Gbase-KX. All 4 ports are used in each channel to provide PICMG3.1 type 9 connectivity.
Reliability	Targeted MTBF is 250000 @ 30°C, calculations based on Telcordia SR-332
Safety / EMC	Safety: meets all requirements of UL/CSA/EN/IEC 60950-1
	EMC: compliant with the Electromagnetic Compatibility Directive, EC Council Directive 2004/108/EC
Board Specifications	PICMG3.0 R3.0; PICMG 3.1 R1.0 specification options 1 and 9
	AMC.0 R2.0 specification; AMC.1 R2.0 specification type 1, 2, 4, or 8; AMC.3; HPM.1
Target Certifications	Designed for NEBS Level 3
RTM (RTM8063)	Regular PICMG3.0 Managed FRU/Hot Swap Dual SAS/SATA Hard Disk; 2x USB, 2x SFP, Serial RJ-45; and external SAS connector

Technical Information

BIOS	UEFI BIOS from AMI (UEFI Aptio4) with Compatibility Support Module (CSM), providing legacy BIOS compatibility	
	Save AMI Setup configuration in non-volatile memory option	
	Boot from Ethernet PXE (Base and Fabric interfaces and management Lan)	
	Boot from Ethernet iSCSI (Fabric interfaces)	
	Boot from SAS; and boot from USB 2.0 (Floppy, CD-ROM, Hard Disk)	
	Diskless, Keyboard less, and battery less operation extensions	
	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, 4.0)	
	Console redirection to serial port (VT100) with CMOS setup access, and SOL (Serial over LAN)	
	Event (correctable/uncorrectable ECC, POST errors, PCI Express Error to IPMC); log support to IPMC	
OS Compatibility	Red Hat Enterprise Linux Server version 5.8 64-bit; Red Hat Enterprise Linux Server 6.1 64-bit; Wind River CGL 4.3	
IPMI Features	Management Controller compliant IPMI v2.0	
	Remote control capability (power on-off /graceful shutdown/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 “graceful ACPI shutdown” policy on disk storage deactivation (AMC or RTM)	
	Full standard PCIe Hot Plug operation embedded with PICMG AMC/RTM activation	
	Robust HPM.1 for IPMC/BIOS/FPGA update with rollover capability; IPMC is without any payload impact (HPM.1)	
	Override configuration for activation of the board/AMC/RTM without Shelf Manager Intervention	
	Manageability features via Embedded Web Server (such as remote control, System Event Log viewer, firmware upgrade)	
Supervisory	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 are monitored	
	Extensive sensors monitoring (around 100 IPMI sensors) and event generation base on thresholds and discrete reading	
Warranty	Two years limited warranty	
Power Requirements	Board power consumption is less than 315W; no RTM & no AMC. Power Policies can be used to control power requirements. * The power consumption will vary depending on your product configuration (AMC, RTM & extra memory)	
Environmental	Operating	Storage and Transit
Temperature*	-5 °C to +55 °C / 23 to 131°F	-40 °C to +85 °C / -10 to 185°F
Humidity*	5% to 93% @40°C / 104°F	5% to 93% @40°C / 104°F
	non-condensing	non-condensing
Altitude*	-300 m to 4000 m / -984ft to 13,123 ft	-300 m to 14 000m / -9,84 ft to 45,931 ft
Shock*	11 ms half sine, 3 g, 3 shocks in each direction	6 ms half sine, 18 g, 100 shocks in each direction
Vibration*	5 Hz to 10 Hz @ +12 dB/oct (slope up) 10 Hz to 50 Hz @ 0.02 m2/s3 (0.0002 g2/ Hz) (flat) 50 Hz to 100 Hz @ -12 dB/oct (slope down)	5 to 200 Hz 0.2 g

* Designed to meet or exceed.

Intel Xeon Precessor E5-2600 Embedded Processor Series

Processor SKU	Cores/Threads	Max Clock Speed	Cache	DDR3 Memory Channel	TDP
E5-2648L	8 / 16	1.8 GHZ (up to 2.1 GHz)	20 MB	1600 MHz	70 W
E5-2658	8 / 16	2.1 GHz (up to 2.4 GHz)	20 MB	1600 MHz	95 W
E5-2620	6 / 12	2.0 GHz (up to 2.5 GHz)	15 MB	1333 MHz	95* W

* E5-2620 is not "Hi-Tcase"

#AT8060# 03062012pkm
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Configure your AT8060 Processor Blade and RTM

The Kontron AT8060 and its corresponding RTMs are available in numerous variations of processor SKUs and capacities. To help simplify your next order, please refer to the legends below to help configure the ATCA blade and RTM you require, and consequently, generate Order Numbers you can use to place your next order with Kontron sales.

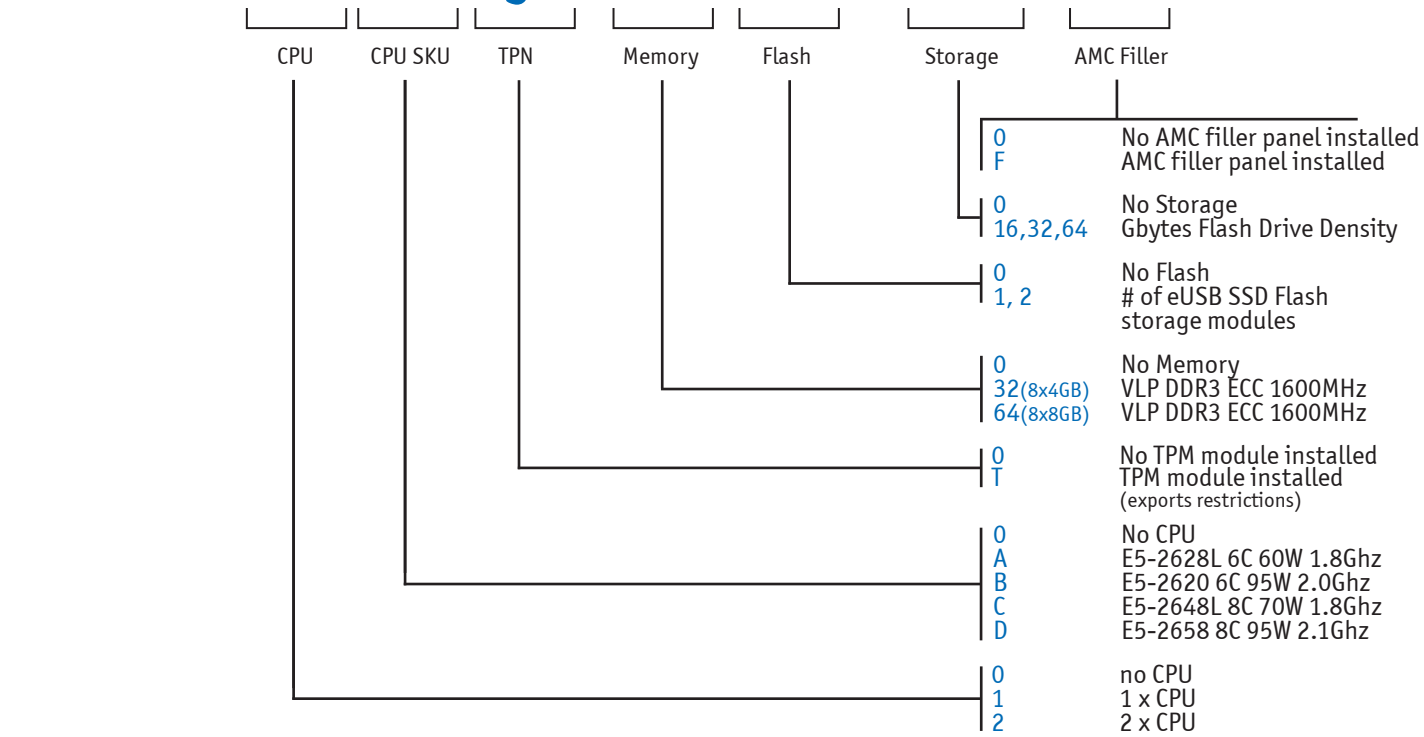
Legend Ordering Code:

Examples:

AT8060-00T-0G-0x0GF-0

AT8060-2DT-64G-2x32GF-F

AT8060-n x y -z*G-m x aGF- b



*Additional memory configurations available upon customer request

Configure your AT8060 Rear Transition Module (RTM)

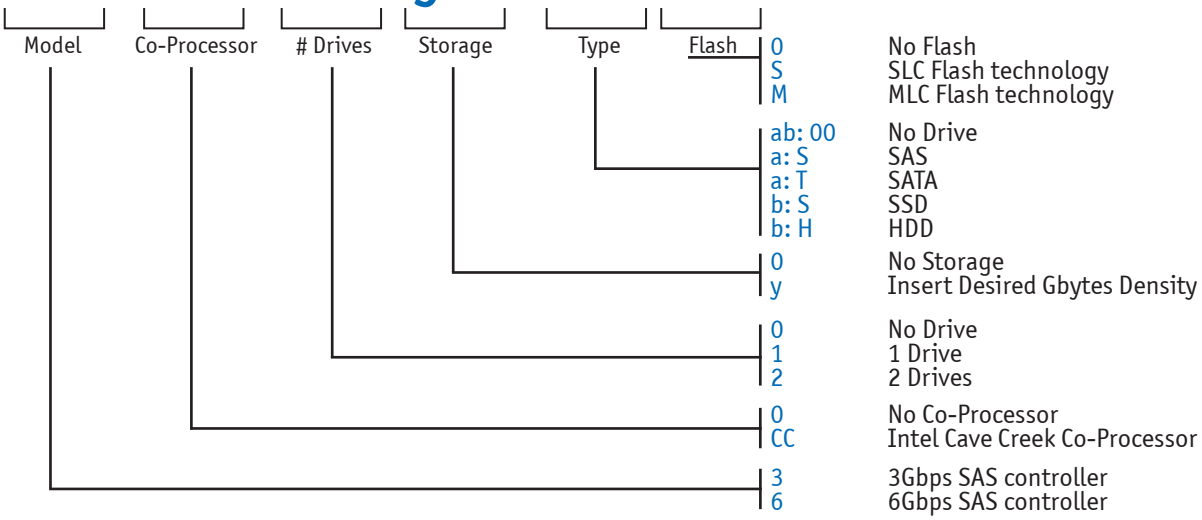
Legend Ordering Code:

Examples:

RTM8063-0-0-0G-000

RTM8064-CC-2-64G-SHS

RTM806x -CC- n -yG-ab c



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