kontron

» OM6060 «

MicroTCA System - OM6060 Compact AMC Platform

» Compact system incl. AC power & fans for up to 6 AMCs
» Entry level MicroTCA for packet processing, image processing and industrial applications
» Single star backplane GbE; PCIe, SRIO & SATA point-to-point
» Power Management, Fan control and PCIe fabric clocks on backplane
» Supports MCMC on backplane, Basic MCH and fully featured MCHs

Product Overview

The OM6060 is a compact AMC platform targeted as entry level solution for prototypes in test equipment, packet processing and industrial applications. It can accommodate up to 6 mid-size AMCs and one MCH (full-size). An AC power supply is located in the rear. The OM6060 supports multiple CPUs with I/O-boards over PCIExpress (PCIe) without need of an extra PCIe fabric switch. PCIe fabric clocks are generated on the OM6060 backplane. Without need of Ethernet connectivity, the OM6060 provides MicroTCA management for AMCs over an MCMC-module (AM2901) on the backplane. This way, overhead and costs are reduced to a minimum.

The OM6060 also provides Ethernet connectivity to all AMCs. In such configurations an Ethernet switch is located on the MCH. Depending on the level of Ethernet features required Kontron offers a low-cost unmanaged MCH (AM4901), or a fully featured MCH with carrier grade switching and management features (AM4904).

For packet processing applications, the OM6060 provides extra direct Ethernet links from AMC slot 1 to four adjacent AMC slots, which can be used by a packet processor on AMC, such as the AM4204 or AM4210. This way 10GbE fabrics and switches are not required.

Alternatively, the OM6060 can be used with high-speed SRIO links in point to-point configurations between adjacent AMCs. The AMC bays are fully compliant with the AMC standards and the MicroTCA standard, so any standard compliant AMC may be used. The OM6060 represents an entry level environment for the development of customer I/O boards on AMC. To support such developments, it can be combined with an AMC starter kit, which is available on request. The OM6060 backplane has been designed to support a wide range of applications. Customer specific backplanes are available on request.

Key Features

» Low cost platform for multi-core packet processing, MicroTCA prototyping and customer specific AMC designs
» Compact size: 150 mm height (3U including mounting brackets), 157 width, 259 mm deep
» 250 Watts AC power supply in the rear
» Port mapping with GbE single-star and point-to-point fabrics
» Dedicated AMC slot for packet processor with high connectivity (no need for 10 GbE switch)

Systems Configuration

» Basic configuration: chassis incl. AC power & fans and MicroTCA management
» Management options: MCMC-Module on backplane; Basic MCH (management plus GbE unmanaged switch); Fully featured MCH with managed GbE switch
» Packet processing: AM4204 or AM4210 NSP plus up to 4 IO-boards (over GbE point-to-point and GbE switched), plus CPU (AM4011, AM4101) as system controller
» Industrial Controller: up to 3 pairs of CPU plus IO-board (over PCIe point-to-point connections), up to 3 pairs of CPU plus HDD (over SATA)
» Prototyping for image processing and test equipment: CPU (AM4101) plus high-speed IO boards (over SRIO point-to-point connections)
» Option: AMC starter kit (IPMI reference design) to support customer AMC developments for IO boards
» Supports configurations with up to 3x CPU/IO pairs, 3x CPU/HDD, or 2x CPU/2xHDD
» External SATA connectors on backplane
» Customized designs

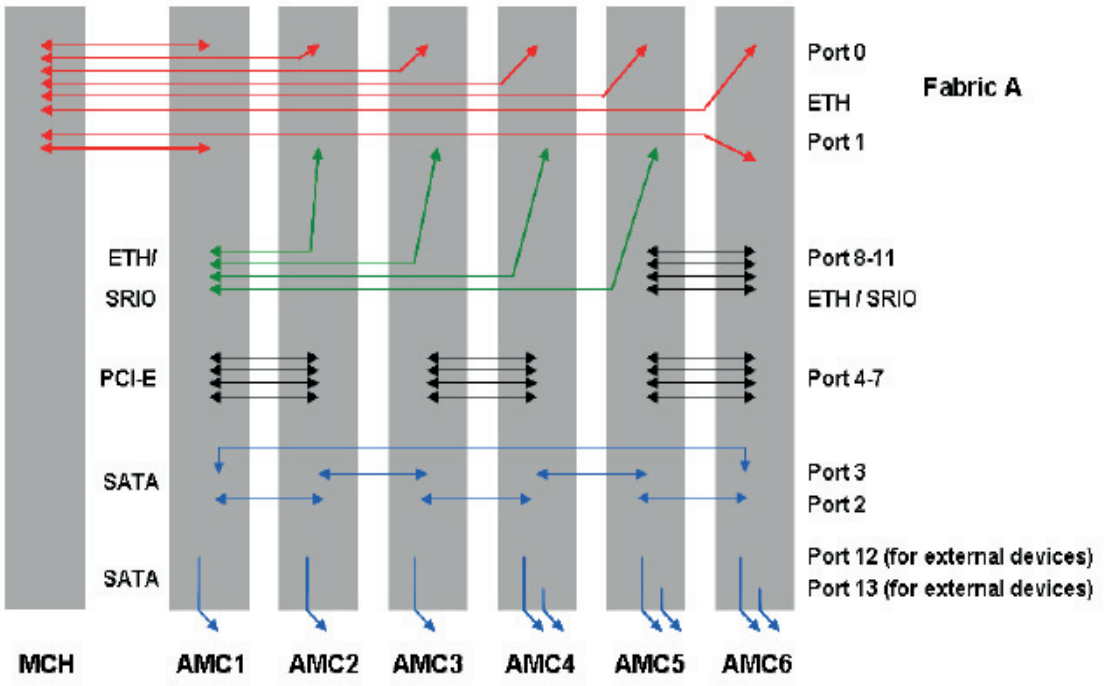
Technical Information

OM6060-250W (AM2901)	Chassis incl. AC Power & Fans, MCMC management module, 6 AMC slots
Options	
Processor AMCs	AM4010 Intel Core2 Duo with WindRiver Linux installed, AM4100 Freescale Dual Core PowerPC M8641D with VxWorks installed.
Operating System	Windows, Linux (Red Hat, WindRiver), VxWorks
I/O AMCs	Storage Boards (over SATA), I/O boards (over PCIe or SRIO)
OM6060-250W (AM4901)	
Options	
Processor AMCs	Intel® Core™ i7 based AMCs such as AM4020, AM4022; Freescale™ QorIQ based AMCs such as AM4120, AM4140
I/O AMCs	Storage Boards (over SATA), I/O boards (over PCIe or SRIO), DSP and I/O boards for telecommunications (over GbE)
Physical Dimensions	150 mm height (3U incl mounting brackets) 157 mm width, 259 mm depth 1 Full-Size MCH slot on front 6 Mid-size AMC slots on front 2 axial fans below AMC tray AC Power on rear (100 VAC to 240VAC) 250 Watts power supply
Standards Compliancy	MicroTCA compliant AMCs MicroTCA compliant MCH System Management: IPMI 1.5 on MCMC or MCH Providing backplane infrastructure for AMC.1 PCIe, AMC.2 10/1 GbE, AMC.3 Storage, AMC.4 sRIO No MicroTCA Power Modules and Cooling Units
Environmental & Regulatory	
Safety	IEC60950-1
EMC	EN55022 (CISPR22)
Vibration/Shock	IEC60068-2-6/EIC60068-2-27
Climatic Humidity	IEC60068-2-78
WEEE	Directive 2002/96/EC
RoHS	Directive 2002/95/EC

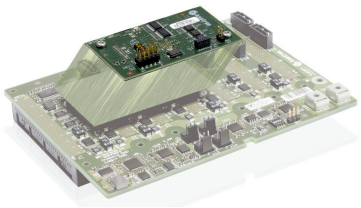
Ordering Information

Article	Description
OM6060-250W (AM2901)	6-Slot MicroTCA System + AM2901 MCMC management module
OM6060-250W (AM4901)	6-Slot MicroTCA System + AM4901 cost-optimized MCH with unmanaged GbE switch

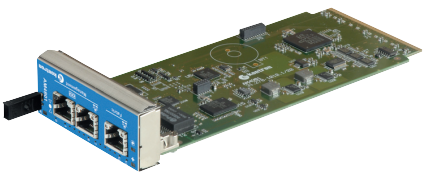
Backplane Topology



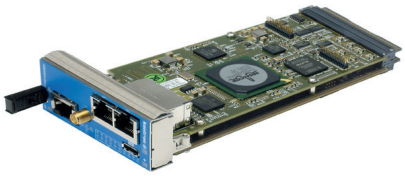
MCMC/MCH Options for OM6060 Chassis



AM2901



AM4901



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