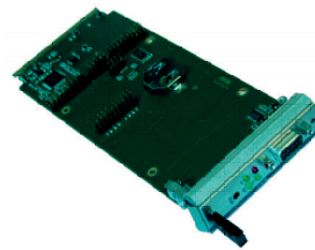
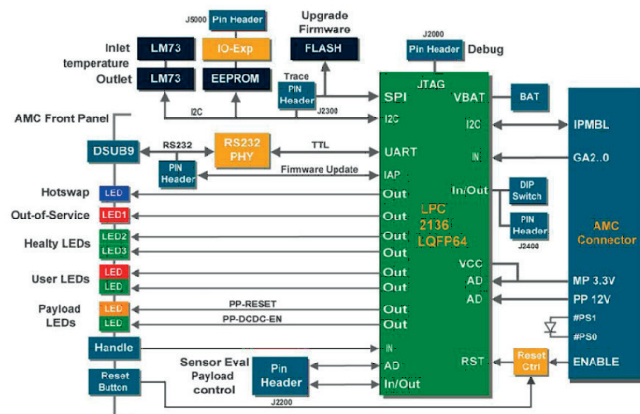


# » AMC-MMC Developer Kit «



*MMC Starter Kit  
Hardware Building Block  
& Reference AMC*

## AMC Developer's Package

- » Proven building blocks for MicroTCA management
- » Reference implementation on AMC incl. debugging facilities
- » Modular Design to facilitate adaption

## AMC-MMC Developer Kit

### AMC Developer's Package

For AMC developers MicroTCA management may represent an obstacle for own AMC designs. The management functions over IPMI on AMCs are contained in a functional entity named MMC (module management controller). The AMC developer's package provides proven building blocks for MicroTCA management: a hardware building block, MMC management software, as well as a reference implementation on AMC incl. debugging facilities. The MMC hardware building block may be copied into own AMC developments. The MMC software is available as binary with runtime-licenses and as source code. Customer specific adaptations can be provided on request.

The MMC Starter Kit is offered in cooperation with DENX Computer Systems. The MMC controller provides a standards compliant IPMI firmware implementation, which has been tested with systems and AMCs from Kontron and other suppliers. It is already in use in numerous applications in the industry.

The MMC Starter Kit hardware is based on a NXP ARM7 LPC2136 controller at 60 MHz including 256 kB Flash and 32 kB RAM. More powerful upgrades are possible (such as LPC 2138 or LPC 2368). The MMC Starter Kit is delivered as reference implementation on a single mid-size AMC card, which is ready to run on the OM6060 base system and other target systems. The MMC communicates over the IPMI-L interface (via I2C) with the MCMC contained on the AM4901 MCH.

DIP switches allow to change the configuration. System messages are visualized with status LEDs. The IPMI firmware controls two temperature sensors LM73 in the reference board. Additional sensors can be applied on PIN headers. As management interfaces with the MMC starter kit a serial console port on the front of the AMC or JTAG can be used.

The IPMI firmware on the MMC starter Kit is written in standard "C" running on the FReeRTOS Operating System. Popular commercial tools and Free Software tools, such as the GCC environment are supported. The firmware is based on a modular design to facilitate adaptations for extensions and modifications. The IPMI firmware complies with IPMI 2.0, MTCA R1.0 R1.0/2.0 specifications.

The MMC Starter Kit package contains:

- » MMC Starter Kit Hardware (reference AMC)
- » Tool to generate FRU data
- » IPMI firmware (standard version, binary)
- » Firmware update program (serial console)
- » MMC Starter Kit schematics (PDF)
- » MMC Starter Kit Bill of Material in Microsoft Office Excel OpenOffice Calc format
- » Manual (PDF)

### Ordering Information

Article	Description
AMCMC-Developer Kit	» AM4XM-MMC-DEVKIT

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