

IPMI CONTROLLER

AXIE, ATCA AND CPCI SERIAL SYSTEMS

DESCRIPTION

The IPM Controller software is pre-programmed on a NXP K10 microcontroller and provides all intelligent platform management interface (IPMI) functionality required by the PICMG 3.0 and AXIe 1.0 specifications.

Together with Elma's Shelf Manager, the microcontroller and software form a complete system monitoring and management solution for all field replaceable units (FRUs) including cards, cooling units, power supplies etc. The software package includes intuitive FRU and sensor data record (SDR) GUI compilers for easy configuration of the IPM Controller.

The Controller functionality can be added by incorporating the microcontroller into the design of any FRUs to be monitored. Elma's IPMI Controller can be used in AXIe, ATCA and cPCI Serial systems.

FEATURES

- Supports both IPMB-A and IPMB-B
- Part of complete system monitoring and management solution including Elma's shelf manager board
- Pre-programmed IPMI software delivered on an NXP K10 microcontroller
- Analog inputs for voltage current or temperature measurements
- External I2C for temperature measurements and communication with payload
- Inputs for digital sensors
- Outputs for E-keying (PICMG 3.0)
- External thermal-diode for monitoring FPGA or in-chip sensors
- Hot swap switch input LEDs and payload power control outputs
- Serial interface for debug, firmware update and configuration. The firmware update is supported also over IPMB
- Reference schematic
- GUI software for fast and easy configuration
- Small footprint 10 x 10mm in a TQFP64 package
- Source Code option is available

SENSORS

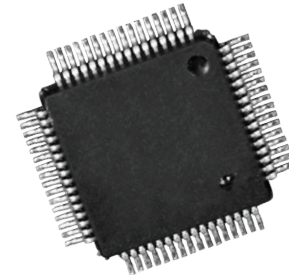
The IPMI Controller supports multiple sensors. Each one has a predefined sensor number and if used, has an SDR associated with it. Using the set of SDRs, the IPMI software knows what sensors are implemented by the FRU and how to monitor them.

APPLICATIONS

Elma's system management products for AXIe, ATCA, and cPCI Serial systems can be used in a wide range of embedded computing applications including high performance instrumentation, defense, aerospace, high energy physics, manufacturing, telecommunications as well as others.

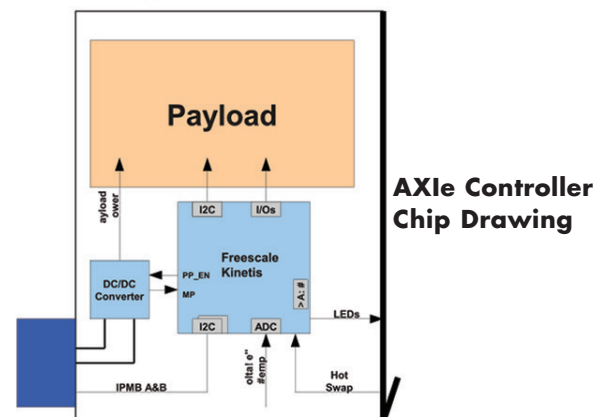
Example Order Number: SM-VP-CC-INT

IPMI Controller and controller software

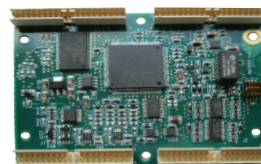


IPMI Controller Chip

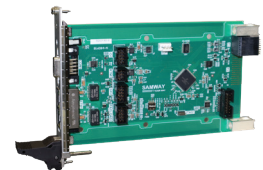
BLOCK DIAGRAM



RELATED PRODUCTS



System Shelf Manager



3U Air Cooled Cahssis Manager

IPMI CONTROLLER

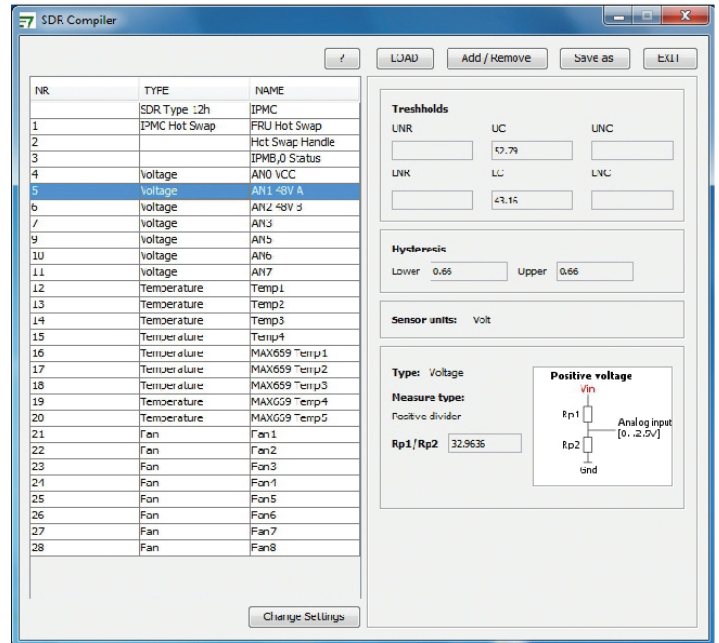
AXIE, ATCA AND CPCI SERIAL SYSTEMS

GRAPHICAL FRU/SDR COMPILER

The IPMI Controller uses standard, IPMI compliant FRU and SDR records to monitor the FRU parameters such as:

- Health monitoring
- Voltages
- Fan RPM
- Power management
- Temperature
- Serial numbers
- Part numbers
- Software versions

The SDR repository of a FRU will be a software image of the hardware sensors. Different FRUs have different setup requirements so in order to allow a quick and simple set-up, a GUI SDR compiler is provided.



SDR Compiler

STANDARD CONFORMANCE

The IPMI Controller uses standard, IPMI compliant FRU and SDR records to monitor the FRU parameters such as:

- IPMI v1.5, Intelligent Platform Management Interface Specification
- PICMG 3.0 R3.0, Specification for Advanced Telecommunications Computing Architecture (ATCA)
- AXIe-1 R2.0, AXIe-1 Base Architecture Specification

Description	Model Number
IPMI Controller and controller software for AXIe Systems	IPMI-C-AX
IPMI Controller and controller software for AdvancedTCA Systems	IPMI-C-AT
IPMI Controller and controller software for CompactPCI Serial Systems	IPMI-C-CS
IPMI Controller Software Source Code	79-V46-CHMC-SW

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