

The System Management Test Card is intended to be an evaluation board for Elma's model CAE041095 IPMI Controller. The board implements all of the IPMI Controller features available, and allows rapid product development by providing easy access to all IPMI controller pins. All signals are available on a series of connectors so any prototype board can be easily connected to the IPMI Controller without the effort of building a dedicated PCB.

The on-board IPMI Controller software is pre-programmed on a Freescale K10DX256 microcontroller and provides all IPMI functionality required by the PICMG 3.0 and AXIe 1.0 specifications. Together with Elma's model CAE037134 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 IPMI Controller. The test card uses a set of additional components in order to fulfill the mandatory requirements of the specs. For implementing optional features, additional circuits are required. The System Management Test Card implements all additional circuits required by the IPMI Controller in order to provide all monitoring and control features. Elma's System Management Test Card can be used in both AXIe and ATCA systems.

### Sensors

The IPMI Controller supports multiple sensors. Each supported sensor has a predefined sensor number and if used, has an SDR associated to it. Using the set of SDRs, the IPMI Controller software knows what sensors are implemented by the card and how to monitor them. The System Management Test Card implements the complete sensor set.

### Features:

- Evaluation board for the IPMI Controller
- Implements all optional features of the IPMI Controller: Analog inputs for voltage, current or temperature measurements, external I2C temperature sensors, external thermal-diode sensors, tachometer sensors
- Hot swap switch
- Blue LED, LED 1, LED 2, LED 3
- Payload interfacing signals
- Reference schematic
- GUI software for configuration
- All signals are available to the user through different connectors

## Applications and Related Product

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

**Example Order Number: CAS001037**  
System Management Test Card



System Shelf Manager

ATCA

IPMI Controller Chip

# System Management Test Card

## AXIe and ATCA Systems



Instrumentation



VITA



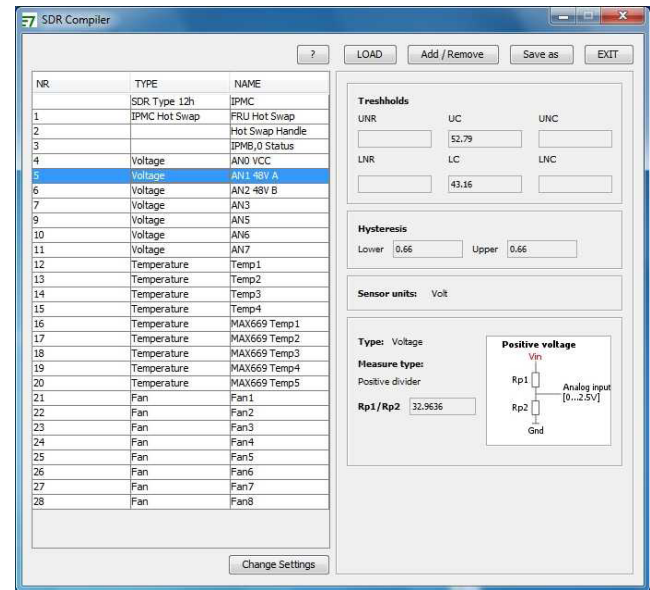
PICMG

## Graphical SDR/FRU Compiler

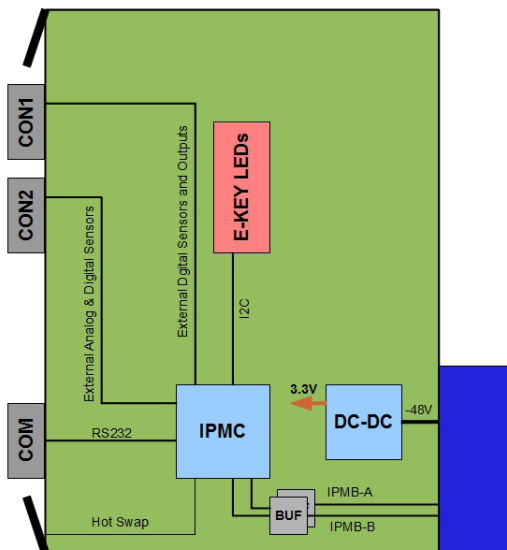
The on board IPMI Controller uses standard, IPMI compliant FRU and SDR records to monitor the board parameters such as:

- 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.



## Block Diagram



## Ordering Information

Please contact our sales department at 510-656-3400 or via email at sales@elma.com for specific model configurations.

## Standards Conformance

Elma's System Management product family is compliant with the following specifications:

- 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