coreIPM®

Baseboard Management Controller Software & OPMA2368 Module

www.coreipm.com

coreIPM OPMA2368 Module is a plug-in solution for system management and embedded applications. It comes with open source software that can be modified freely. With a rich set of peripheral drivers and an operating environment, it provides a platform to build and ship your applications quickly.

coreIPM OPMA2368 Module runs the full suite of coreIPM software including *coreIPM-BMC* which is a free and open source Intelligent Platform Management Interface (IPMI) v2.0 specification compliant software that provides management functions for a motherboard. *coreIPM-BMC* integrates all system management functions into an off-the-shelf single chip microcontroller.

coreIPM-BMC is one component of the *coreIPM* management architecture. Other components of *coreIPM* provide management capability for elements of the IPMI, ATCA and MicroTCA environment such as ATCA/AMC blades, Cooling Units, Power Modules, and Shelf Managers.

coreIPM OPMA2368 Module

Is a SODIMM form factor (2.66" x 1.42" / 68mm x 36mm) daughtercard that conforms to the AMD Open Platform Management Architecture (OPMA) m2 specification for motherboard management.
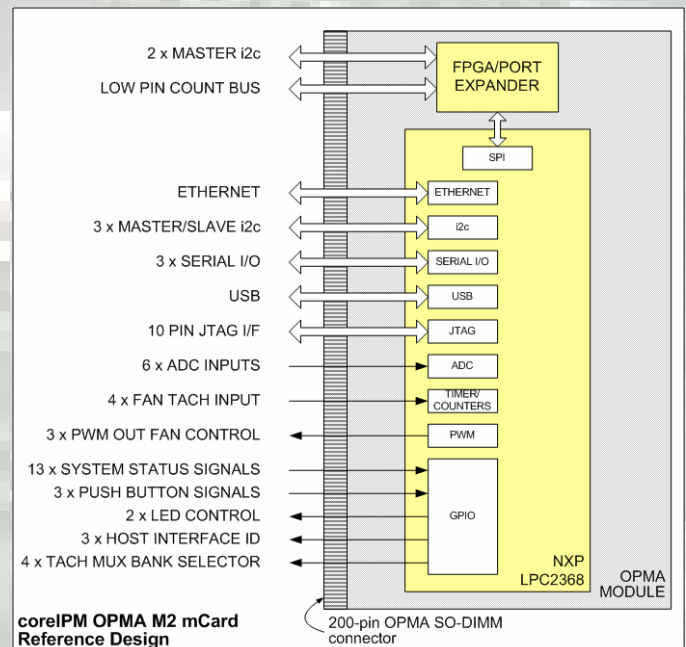
OPMA2368 Features

- NXP LPC2368/LPC1768 32-bit ARM7 microcontroller.
- Integrated 10/100 Ethernet MAC/PHY & magnetics.
- 3 Master/Slave i2c bus I/F
- 3 RS232 ports

- USB
- 10 pin JTAG
- 6 ADC inputs
- 4 fan tach frequency counter inputs
- 3 PWM outputs for fan control
- 25 GPIO pins

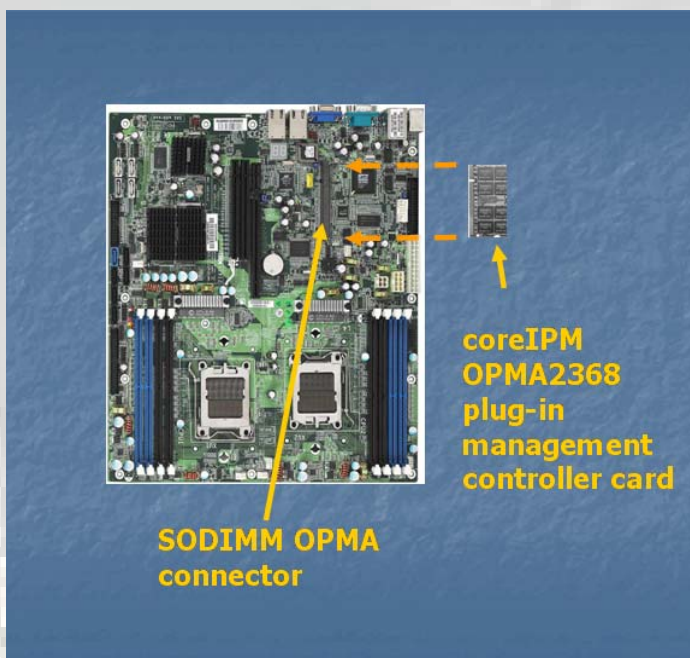(Most pins are re-assignable for other applications.)

coreIPM OPMA2368 Module

coreIPM OPMA2368 Block Diagram
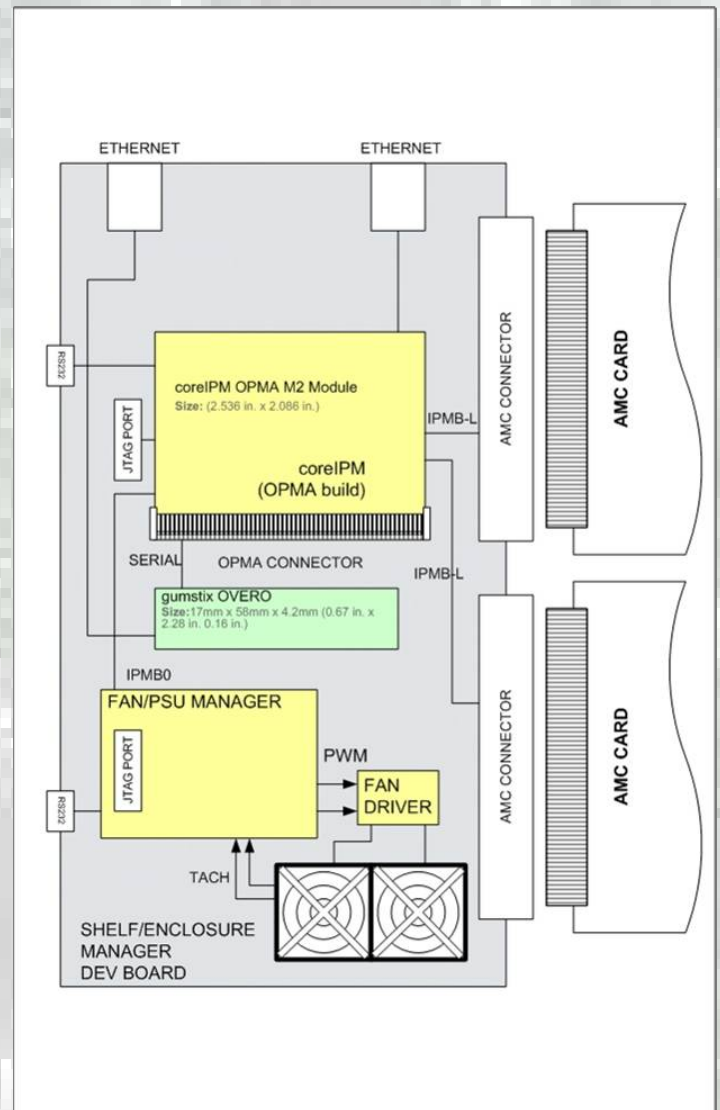
coreIPM-BMC Supported Features

- Multiple i^2c buses
- Terminal mode sytem interface over RS232
- Timers

- General purpose IO pins for latches, LEDs, backplane addressing, HW control and other uses
- RS232 ports
- ADC
- PWM fan control
- SPI SEEPROMs
- Watchdog timer
- Edge or level sensitive interrupt pins
- In circuit flash programming, enabling in system firmware upgrades
- TCP/IP stack with RMCP+, SNMP Traps, Serial over LAN & crypto support
- JTAG interface
- xx75 family temperature sensor support
- Multi-session access
- User Privilege Levels
- Cipher Suites: HMAC-SHA1-96/AES-CBC-128

coreIPM OPMA2368 plug-in management controller card

SODIMM OPMA connector

coreIPM Development Board for Motherboard and Shelf Management

Development
Full set of development tools using either gcc or commercial compilers and debuggers are available from multiple vendors. JTAG interface enables program downloads and on-chip debugging. *coreIPM* provides a development board for system management integration & development for different applications.

Licensing
Source code is available under the Open Source GNU General Public License (GPLv2) and commercial licensing. *coreIPM LLC* has full ownership of the source and can provide alternative licensing, reference designs, support, customization and consulting services. Commercial licensees don't have the requirement that their *coreIPM* based software be open sourced.

For further information: info@coreipm.com