MegaRAC Development Kit for the AST2600 BMC

The MegaRAC Development Kit for the AST2600 BMC features hardware, tutorials, and access to MegaRAC OpenEdition™ based on The Linux Foundation® OpenBMC™ firmware to help developers and engineers gain experience in sensor porting, management technologies such as Serial over LAN (SOL) and UART, and virtual media (vMedia). This kit allows customers to begin immediate development and training projects using the MegaRAC BMC Firmware with the AST2600 BMC from ASPEED Technology.

MegaRAC OpenEdition™ Firmware

MegaRAC OpenEdition is a hardened, production version BMC firmware based on The Linux Foundation® OpenBMC™ firmware. MegaRAC OpenEdition can be enhanced with proprietary AMI IP packages based on the proven MegaRAC SP-X Service Processor firmware stack, trusted for years by leading OEMs and ODMs for its robust, secure remote server management. MegaRAC OpenEdition features an intuitive, extensible open-architecture development framework.

Bundled Hardware

- AST2600 EVB
- AMI Sensor Board
- Host System
- Fan

Tutorials

- Firmware & AMI DevNet® Installation and Environment Preparation
- Projects to gain development experience

Key to its flexibility is a robust “common core” concept that delivers a highly managed source base with high ROI, and a complete Service Processor Solution for wide product deployments. MegaRAC OpenEdition includes dedicated support, code patches and security advisories that all AMI customers trust and expect.

MegaRAC OpenEdition encompasses a family of blended Firmware / Software, Tools & Utilities and Services:

MegaRAC FW/SW Solutions	MegaRAC Services	Supported Platform
Server Baseboard Management Controller (BMC)	Fee-based services for complete development and delivery of the product	Microsoft® Project Olympus platform
Enclosure (Chassis or Rack Manager) BMC	Turnkey and Engineering (NRE) Services, including BMC feature design and customization	Intel® Server System (“Wolfpass”) CRB
Essential licensable IP modules to provide complete manageability	Hardware Platform Porting	MiTAC® Tioga Pass, WiWynn® Tioga Pass
Full-featured AMI DevNet development environment, which offers distinct advantages and benefits for FW enhancement	Quality Assurance (QA) & Security Analysis Services	

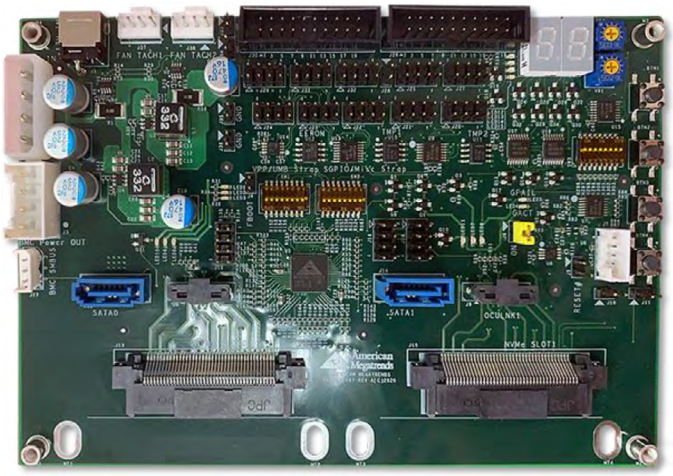
OEM/ODM Provided

- USB Driver (SD, USB flash for virtual media)
- Ethernet, Serial and/or Display Cable(s)

MegaRAC firmware supports a number of Customer Reference Board (CRB) designs, with new platform support being added on a periodic basis.

AMI Sensor Board

The series 997 Sensor Board is designed to mimic the sensors that are typically found on data center server platforms. This allows ODM and OEM customers to begin immediate development using the MegaRAC BMC firmware with the AST2600 BMC. Firmware engineers gain hands-on experience with sensor porting, management via Serial Over LAN, management via UART and with vMedia. MegaRAC Open Edition encompasses a family of blended Firmware / Software, Tools & Utilities and Services:



- 2x Current/voltage sensors (INA219A) for 12V and 5V DC power monitoring
- 2x drive facing connectors for NVMe/SAS/SATA (SFF-8639 U.2 Slot; U.3 compatible)
- 2x host facing connectors for U.2/U.3 NVMe (x4 OCulink)
- 2x host facing connectors for SATA/SAS (std 7-pin SATA)
- 1x Backplane Controller (AMI MG9100) UBM/VPP/SGPIO host protocol for drive, LED
- 1x NVMe I²C management interface (accessible via pin header)
- 1x 2-channel I²C MUX with Interrupt (PCA9543A)
- 2x temperature sensors (TM75AID)
- 1x 16K bit EEPROM (24LC16B)
- 1x 2-to-1 I²C master de-multiplexer with an arbiter function (PCA9641)
- 1x I²C repeater (PCA9617)
- 1x Parallel-in/serial-out (74LV165A) with 8
- 2x Serial-in/parallel-out (74LV595A) with 7 segment LED display
- 2x potentio meters for +12V, +5V voltage monitoring (to BMC ADC input)
- 1x 2-channel +12V DC FAN control (PWM)/monitoring (TACHO)
- Signals are available via pin headers for composing desired I²C topologies
- 4 GPIO controlled LEDs
- 4 digital inputs via 4 tactile switches

MG9100 can be configured via DIP Switches to serve multiple backplane applications

For more information, please visit: ami.com/devkit

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