



MicroBMC

pfSense Based BMC Module

Product Description

- Open-Source, Low-cost, RESTful BMC based on pfSense security gateway software
- Targeted at NFV edge appliances
- TI ARM Cortex-A8 module
- Security and extensibility of pfSense are foundational to MicroBMC
- Alpha sampling now, Production and open collateral posting Q1 2017
- Development Kit available



Technical Specifications

General Technical Specifications

Form Factor:	27mm x 54mm Module
CPU:	TI AM3352 ARM Cortex-A8, including crypto accelerator, 300 or 600 MHz (The following specs are for ADI's TI A8 based MicroBMC module) Intel Quark X1000 module under development (implementation-dependent specs may vary from the following)
DRAM:	256 or 512MB DDR3, memory down
Ethernet:	Integrated on-board 3-port managed GbE switch Two external 1GbE switch ports on module connector for external management port and connection to main system CPU
Flash:	eMMC on-board, 4GB (custom build options support up to 64GB)
Voltage Monitoring:	8x motherboard power supply voltage monitoring analog inputs Expandable with optional analog MUX on motherboard

Fan Control:	2x independent PWM output / tachometer inputs fan channels
PSU Monitoring:	4x PSU powergood inputs
GPIO:	8x user-defined digital I/O pins
RTC:	Yes, for timestamp of FRU EEPROM event log entries
Virtual Media:	USB device connection to host CPU for USB boot over LAN
CPU Status Monitoring:	Sleep S3, S4, S5 indicators PROCHOT#, THERMTRIP# thermal indicators CPU error indicators Platform reset
CPU Power State Control:	Reset button control Power button control
Heartbeat Monitoring:	Software GPIO on host CPU drives watchdog input on μ BMC
I2C:	Bus 0 (master). Onboard FRU EEPROM, connectivity for motherboard discrete thermal sensors and other devices Bus 1 (master). Access to PECI SMBus slave inside host CPU. Used for monitoring CPU die temperature.
SPI:	Used to access host CPU boot flash for remote BIOS updates
EEPROM:	32kB I2C EEPROM on board, for management event logging
Power:	3.3VDC and 5VDC
Temperature:	Operating: 0-70C Storage: -20-85C