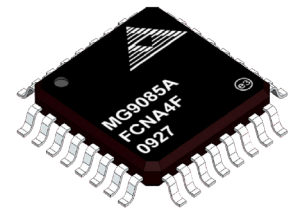


AMI MG9085A Backplane Controller

For SAS/SATA backplanes



The MG9085A is a low-cost, ultra-small, single-chip Solution with USB support for use on SAS and SATA Backplanes for up to 4 drives per backplane. Cascaded controllers can support up to 8 drives.

A true single-chip solution, the AMI MG9085A helps optimize backplane layouts with the latest enclosure management technologies. This highly integrated and space-optimized chip features an internal oscillator, is available in a LQFP-32 Package (9mm x 9mm), and omitting the usual components that drive backplane costs up such as external crystal, flash memory, Power-On-Reset (POR) chip, regulator, EEPROM LED Driver, FRU and transceivers. It also ships ready to use with no firmware or programming required.

BENEFITS

MG9085A controller can manage LED patterns for up to 6 SAS/SATA drives providing drive activity, fail, rebuild and locate LED indication signals. For LED management, it supports SGPIO (SFF-8485) and IBPI (SFF-8489) or SES-2 over SMBus. These features make the controller suitable for a wide variety of systems handling multiple drives from 6 to 8. Currently, 3 different off-the-shelf configurations are available from AMI.

MG9085A leverages the use of power signals on the SAS/SATA drive connector to detect its presence and activity. LED management uses SGPIO (SFF-8485) and SES-2 from RAID Controllers, PCH and SAS Expanders.

LED BLINKING PATTERN

In 3-LED mode, MG9085A follows the blinking pattern as defined in the following table for various drive states:

Drive State:	3-LEDs/SLOT		
	Activity (Green) LED	Locate (Amber) LED	Fail (Red) LED
Drive Not Present	OFF	X	X
Drive Present, No Activity	ON	X	X
Drive Present, Activity	4Hz	X	X
Locate (Identify)	X	4Hz	OFF
Fail	OFF	OFF	ON
Rebuild	X	OFF	1Hz
Predicted Fail	X	OFF	2 Fast Blink at 4Hz & Pause for 0.5 Sec

HIGHLIGHTS:

- Support Enclosure Management for SAS/SATA Drives
- Support Enclosure Management through SGPIO (SFF-8485) and SES-2 over SMBus
- Supports IBPI specification SFF-8489
- Supports Present & Status LEDs for each drive
 - Directly drives 2 LEDs for up to 6 slots
 - Directly drives 3 LEDs for up to 4 slots
 - Global Activity & Global Fail LED supported
 - Cascaded controllers can support up to 8 drives.
- USB 2.0 compliant support for Status, Monitoring, Diagnostic, and FW Update
- Built in Regulator for 5V operation
 - Supply range 3.6V-5.25V
- Small LQFP-32 Package
 - 9mm X 9 mm pin outline
 - 7mm X 7 mm housing
- Internal Oscillator
 - No external crystal needed
- Part ships ready to use, no firmware or programming required
- Firmware Upgradeable or Configurable through USB
- Diagnostics and FW upgrade tools available for Windows



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For more information: <http://ami.com/products/backplanes-and-enclosure-management>