

AMI Backplane Controller Matrix

The MG90xx Backplane Controller series from AMI provide LED and drive management for SAS/SATA/NVMe drives. They provide exceptional flexibility and require minimal board real estate, making them a perfect fit for numerous applications. A wide choice of reference designs and development tools are available, along with development boards to speed integration in specific OEM designs.

AMI's Backplane Controller series work with any HBA supporting SGPIO (SFF-8485) and/or SES-2 protocol over I2C. Backplane Controller Firmware can be upgraded via SMBus from the motherboard BMC, or USB, depending on the model.

Features

- True Single Chip Solution
- Ready to use, no firmware or programming required
- MG9100 UBM and MG9098 BP controllers support new generation NVMe SSDs
- Supports LED/Drive Management through SGPIO (SFF-8485) and/or SES-2
- Supports IBPI specification (SFF-8489)
- LED/Drive Management for NVMe SSDs supported through BMC and VPP SMBus
- Can drive up to 3 LEDs per slot
- Provides Drive Activity, Fail/Rebuild and Locate LEDs for each drive
- Up to 4 controllers can be cascaded to support up to 32 drives
- Firmware upgradeable through SMBUS from host BMC
- Diagnostics and Firmware Tools available for Win32, Win64, Linux, EFI and DOS
- Available in QFN-64, TQFP-48 & LQFP-32 packages

MG90xx Comparison Chart

The table below compares the key features of the MG90xx Backplane Controller series from AMI. For more detail on individual Backplane Controllers, see the individual MG90xx Backplane Controller product page and download the Data Sheet for the full product specification.

Features	MG9098	MG9094	MG9081	MG9082	MG9085A	MG9087
Drives	8 NVMe/SAS/SATA	8 SAS/SATA ¹	8 SAS/SATA	8 SAS/SATA	6 SAS/SATA	8 SAS/SATA
Ready LED Support	Yes	Yes	Yes	Yes	Yes	Yes
SGPIO Ports	2	2	2	2	1	2
SES-2	No	No	Yes	No	Yes	Yes
Internal Voltage Regulator	No	Yes	Yes	No	Yes	Yes
Internal Crystal	Yes	Yes	Yes	Yes	Yes	Yes
Configurations	96	44	30	16	4	30
BMC Access through SMBus	Yes	Yes	No	Yes	No	Yes
PCIe Hot-plug SMBus support	Yes	No	No	No	No	No
IPMI	No	No	Yes	No	No	No
IBPI	Yes	Yes	Yes	Yes	Yes	Yes
Hard-coded Custom LED Blinking Patterns	Yes	Yes	No	No	No	No
Programmable Custom LED Blinking Patterns	Yes	No	No	No	No	No
Global Act & Fail LED	Yes	Yes	Yes	Global Act Only	Yes	Yes
USB	No	No	Yes	No	Yes	Yes
SAS Power Disable	Yes	No	No	No	No	No
NVMe/SAS Drive Detect	Yes	No	No	No	No	No
Package	QFN-64	TQFP-48	TQFP-48	TQFP-48	LQFP-32	TQFP-48



©2020 AMI. All rights reserved. Product specifications are subject to change without notice. Products mentioned herein may be trademarks or registered trademarks of their respective companies. No warranties are made, either expressed or implied, with regard to the contents of this work, its merchantability or fitness for a particular use. This publication contains proprietary information and is protected by copyright. AMI reserves the right to update, change and/or modify this product at any time.