

# MIC-5401

## Advanced Mezzanine Card SAS/SATA Storage AMC

NEW



### Features

- Single-width mid-size AMC form factor
- SAS or SATA 2.5" hard disk drive compatible
- Hot-swap capable
- AdvancedTCA and MicroTCA compatible
- Dual port SAS drive support
- 3.0 Gb/s interface speed support
- Two thermal sensors to monitor on-board temperatures
- System management compliant to PICMG3.0 R2.0, AMC.0 R2.0, AMC.3 R1.0, and IPMI1.5
- Power-on hour counter
- HPM.1 compliant firmware upgrade and rollback support through IPMB

AdvancedMC™



FCC CE



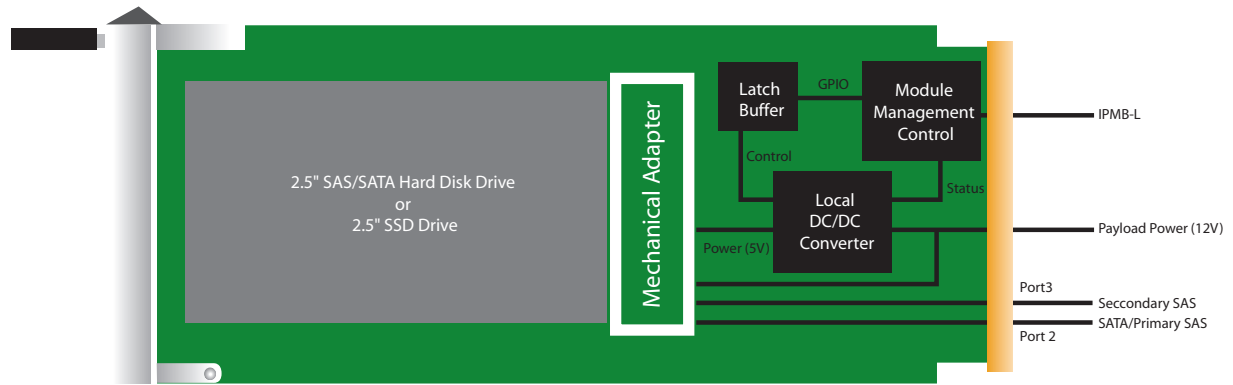
### Introduction

The Advantech MIC-5401 is a single-width/mid-size Advanced Mezzanine Card (AMC) designed to support a 2.5" SAS or SATA hard disk drive to work as an enterprise storage module on an ATCA platform or in a MicroTCA shelf. The 2.5" hard disk drive is connected to the AMC port 2 (SAS and SATA) and port 3 (SAS only) according to the AMC.3 specifications. Dual port SAS drives may be used on the MIC-5401 to increase the interface bandwidth of failover support between dual hosts in fault tolerant environments. Like all other standard AMC modules, an IPMI-based module management controller (MMC) is also implemented on the MIC-5401 to serve as a communication interface to the Carrier Management Controller on an ATCA platform, or to the MicroTCA Carrier Management Controller on the MicroTCA Carrier Hub in a MicroTCA shelf. As a local IPMI controller on the AMC, it manages all hot-swap activities, E-keying, and hardware health monitoring such as voltages (12V, 5V, and management power 3.3V) and on-board temperatures (including hard disk drive's ambient temperature). The MIC-5401's mechanical design is optimized for a maximum of shock and vibration durability combined with a user- and service friendly mounting process for the disk drive.

### Specifications

AMC Module	Single width, mid-size form factor (full-size front panel available as an option)	
Storage Device Supported	2.5" SAS or SATA hard disk drives, or 2.5" SATA SSD (solid state drive)	
System Management	PICMG 3.0 R2.0, AMC.0 R2.0, and IPMI 1.5 compliant Redundant firmware images based on Pigeon Point Systems' solution supporting HPM.1 compliant upgrades and manual/automatic rollback	
Monitor	Power-on hour counter Voltage: 12 V, 5 V, and 3.3 V management power Temperature: two on-board locations	
Watchdog	AMC compliant watchdog	
Thermal Sensor	LM75/DS75 (x2)	
Environmental Conditions	Temperature and humidity (operating)	GR-63-CORE, Issue 3, R4-7 (-5° C ~ 55° C; 5% ~ 95%RH)
	Temperature and humidity (non-operating)	GR-63-CORE, Issue 3, R4-7 (-40° C ~ 70° C; 95%RH)
	Altitude	GR-63-CORE, Issue 3, R4-8, R4-9, R4-10, R4-11, R4-12 (-60 m ~ 4000 m)
	Vibration (operating)	IEC 60068-2-64 (0.002G <sup>2</sup> /Hz, 1 Grms, 5 ~ 500 Hz)
	Vibration (non-operating)	IEC 60068-2-6 (2 G, 5 ~ 500 Hz, 1 Octave/min)
	Shock (operating)	IEC 60068-2-27 (half-Sine, 10 G, 11 ms)
Regulatory	Conformance	UL94V0, FCC Class B, CE, RoHS & WEEE compliant
	NEBS Level 3	Designed for GR-63-CORE and GR-1089-CORE
Compliance	Standards	PICMG 3.0 R2.0, AMC.0 R2.0, AMC.3 R1.0, IPMI1.5, and SCOPE AdvancedMC Hardware Profile V1.0

## Block Diagram



## Ordering Information

Model Number	Front Panel
MIC-5401-0000E	Mid-Size

Note:

1. AMC modules with pre-installed hard disk or solid state disk drives are available on request. Please contact Advantech sales representative for further detail.
2. Full size front panel is available on request.