

# Inspur SAS3008(IT) RAID Adapter

# Whitepaper

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## Introduction

Inspur SAS3008(IT) raid adapter is a 12Gb SAS/ 6Gb SATA Raid on a chip (ROC) Controller compliant with the Fusion-MPT architecture, which offers a cost-effective internal pass-through solution for small to medium business customers. Inspur SAS3008(IT) raid card provides 3Gbit/s, 6Gbit/s, 12Gbit/s SAS data channel.

## Overview

Inspur SAS3008(IT) raid card is designed to ensure data protection for performance-hungry applications in mid-range server storage environments.



### Inspur SAS3008(IT) technical specifications

The following table lists the specs of the Inspur SAS3008(IT)

Table 1. Specifications

Model	Inspur SAS3008(IT)
Form factor	PCIe low profile
Controller chip	Avago LSI 12Gb/s SAS3008(IT)
Host interface	PCIe 3.0 x8
Port interface	12 Gbps SAS, supporting rate of 12Gb/s, 6Gb/s, and 3Gb/s
Port connector	2x SFF8643
Drive interface	SAS, SATA
Drive type	HDD, SSD
Number of drives	8
RAID levels	N/A

Pass-through	Support
Cache	N/A
Cache protection	N/A
Maximum disk	256
Management	MegaRAID Storage Manager StorCLI (command-line interface) CTRL-R (BIOS configuration utility) HII (UEFI Human Interface Infrastructure)

## Features

The Inspur SAS3008(IT) RAID adapter has the following features:

- **Standard Features:**

### S.M.A.R.T support

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology; often written as SMART) is a monitoring system included in computer hard disk drives (HDDs) and solid-state drives (SSDs) that detects and reports on various indicators of drive reliability, with the intent of enabling the anticipation of hardware failures

### Native command queuing

Native Command Queuing (NCQ) is an extension of the Serial ATA protocol allowing hard disk drives to internally optimize the order in which received read and write commands are executed. This can reduce the amount of unnecessary drive head movement, resulting in increased performance (and slightly decreased wear of the drive) for workloads where multiple simultaneous read/write requests are outstanding.

## Configuration

The following tables list optional kits supported by Inspur SAS3008(IT) RAID card.

Table 2. Kit options

<b>Basic controller</b>
Inspur SAS3008(IT) 12Gb RAID adaptor

## Server support

The following tables list the Inspur Server systems that are compatible.

MODEL	Inspur SAS3008(iT)	MODEL	Inspur SAS3008(iT)
NF5212M4	Y	NF5170M4	Y
NF5240M4	Y	NF5460M4	Y

NF5270M4	Y	NF5280M5	Y
NF5280M4	Y	NF5180M5	Y
NF5180M4	Y	NF8480M5	Y
NF8460M4	Y	NF5212M5	Y
NF8480M4	Y	NF5112M5	Y
NF5279M5	Y		

## OS support

- Microsoft Windows Server 2008
- Microsoft Windows Server 2012
- Microsoft Windows Server 2016
- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 7
- SUSE Linux Enterprise Server 11
- SUSE Linux Enterprise Server 12

## Operating environment

The SAS3008(IT) RAID RAID Card adapter is supported in the following environment:

- Maximum ambient: Controller Card: 55 °C
- Environment friendly: compliance to RoHS