

Adaptec SmartRAID 3154-16i

Part number: 2295000-R



The 12 Gbps Adaptec SmartRAID 3154-16i RAID adapter has 16 internal SAS/SATA ports in a x8 PCIe Gen 3 low-profile, MD2 form factor. Microchip's industry leading Smart Storage stack delivers maximum reliability and best-in-class performance that all RAID levels come to expect, plus unique features like Mixed Mode support (RAID and HBA devices can be used simultaneously), adapter power management (reduces power consumption up to 30 percent), and Advanced Data Management (ADM) features that allow data migration from existing RAID arrays.

SmartRAID 3154-16i adapters include maxCache 4.0, and when coupled with 12 Gbps SSDs, provide maximum read/write bandwidth and IOPS as well as acceleration and latency optimization through caching. The SmartRAID 3154-16i adapters also integrate flash-based cache backup to enable instant cache protection. The tethered ASCM-35F capacitor module ensures data is safely backed up to Flash memory in case of power loss.

With broad operating system support and ecosystem compatibility, SmartRAID adapters are easy to implement and scale, and the unified maxView management tools and drivers across the Microchip HBA, RAID, and expander solutions enable easy manageability across the entire product line.

SmartRAID 3154 RAID adapters are ideal solutions for high performance enterprise servers that require maximum connectivity and security.

Product Features

- 16 internal native SAS/SATA ports in low-profile/ MD2 form factor
- Integrated flash-based cache backup to enable instant cache protection
- maxCache 4.0 caching software
- RAID levels: 0, 1, 5, 6, 10, 50, 60, 1 ADM and 10 ADM
- Supports simultaneous use of RAID and raw devices (mixed mode)
- Industry's lowest-power 28 nm SmartROC SAS/SATA protocol controller
- Quality and reliability through the unified, hardened Smart Storage stack, which is deployed in over 30 million servers
- +1.7M 4K random read IOPS
- 40% lower power than previous generations

- Low-profile/ MD2 form factor
- 12 Gbps SAS data rates using mini-SAS HD connectors
- 12 Gbps and 6 Gbps compatibility with HDD or SSD SAS/ SATA devices
- Familiar GUI, CLI, and pre-boot tools ensures consistent performance and user experience across all products
- Proven compatibility with existing Adaptec Smart solutions, multiple operating systems, servers, enclosures, SSDs, HDDs, and LTO tape drives
- CPU Platform Diversity -Support for Intel, AMD, and Cavium ThunderX2 (ARM)
- Open Source Management tools
 - maxCache 4.0 caching software
 - Mixed mode allows devices connected to the same adapter to be used in RAID and HBA modes simultaneously
 - Adapter dynamic power management to save up to 30% power
 - Support for up to 256 SAS/SATA target devices (238 SSD/HDDs maximum support and remainder are reserved for expanders and enclosure management)
 - Support for native 4K sector SAS/SATA devices in addition to 512-byte sector devices
 - RAID ADM through triple mirroring, move array, and split mirroring
 - Quick initialization
 - Online capacity expansion
 - Copyback hot spare
 - Dynamic caching algorithm
 - Native Command Queuing (NCQ)
 - Background initialization
 - Hot-plug drive support
 - RAID level migration
 - Hot spares—global, dedicated, and pooled
 - Automatic/manual rebuild of hot spares
 - SES and SGPIO enclosure management
 - Configurable stripe size
 - S.M.A.R.T. support
 - BMC support
 - Dynamic sector repair
 - Staggered drive spin-up
 - Bootable array support
 - Support for tape devices, autoloaders
 - Smart PQI driver with multiple queue and MSI-X support for all device drivers for all supported operating systems
 - Secure boot support for the uEFI host BIOS
 - USB image available on storage.microsemi.com/en-us/support/start to boot maxView GUI from any USB device for enhanced GUI-based setup and offline maintenance
 - maxView Storage Manager
 - ARCCONF Command-line Interface
 - BIOS Configuration Utility (CTRL+A)
 - ROM-Based uEFI BIOS Configuration Utilities
 - Microsoft Windows, Red Hat, SuSE, Debian, Oracle, CentOS, Ubuntu, VMware ESXi, FreeBSD, Solaris, Citrix Xen Server, and open-source Linux drivers
 - Intel, AMD, Cavium ThunderX2
 - 2.535" H × 6.6" L (64 mm × 167 mm)
 - 50°C ambient and 55°C with 200 LFM airflow
 - CE, FCC, UL, C-tick, VCCI, KCC, CNS
 - RoHS
 - 3 years

Visit us for more info: <https://www.superstorage.pl/adaptec-smarraid-3154-16i-p-3910.html>