

Microsemi Adaptec® SmartRAID 3100 Series: 24i/8i16e/16i/8i8e/8i/8e/4i

12 Gbps PCIe Gen3 SAS/SATA RAID Adapters

Preliminary Product Information

Parameters

Parameter	Description
Key software features	<ul style="list-style-type: none"> maxCache 4.0 caching software (SmartRAID 315x products with cache protection) 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 SSDs/HDDs maximum support, 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 multip queue and MSI-X support for all device drivers for all supported OSes 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
Management utilities	<p>maxView Storage Manager</p> <ul style="list-style-type: none"> Web-based GUI management utility Windows, Linux, Solaris, VMware support Remote configuration, monitoring, and notification Remote firmware updates SMI-S support SMTP <p>ARCCONF</p> <ul style="list-style-type: none"> Command-line interface SMI-S support for VMware <p>BIOS Configuration Utility (CTRL+A)</p> <ul style="list-style-type: none"> Legacy configuration utility Flashable BIOS support <p>ROM-Based uEFI BIOS Configuration Utilities</p> <ul style="list-style-type: none"> Hitl-based pre-boot GUI configuration utility Arccconf CLI for uEFI shell Flashable BIOS support <p>Event Monitor</p> <ul style="list-style-type: none"> Lightweight event monitoring and logging tool Distributes adapter events and notifies user
Operating systems	Microsoft Windows Server, Windows 10, Windows 8.1, Windows 7, Red Hat Enterprise Linux, CentOS, SuSE Linux Enterprise Server, Ubuntu Linux, Debian Linux, Oracle Linux, Citrix XenServer, Solaris, FreeBSD, VMware ESXi, and open-source Linux drivers. The latest drivers are available at storage.microsemi.com/en-us/support/start . Supports open-source Linux drivers and inbox drivers.
CPU architecture	Intel, AMD, Cavium ThunderX2
Dimensions	2.535" H x 6.6" L (64 mm x 167 mm)
Operating temperature	0 °C to 55 °C with 200 LFM airflow (SmartRAID 3154-24i requires 250 LFM). Note: This adapter contains a powerful RAID processor that requires adequate airflow to operate reliably. Only install this card into server or PC chassis with at least 200 LFM airflow (250 LFM airflow for (SmartRAID 3154-24i). Temperature measured 1 inch from RAID adapter.
Regulatory certification	CE, FCC, UL, C-tick, VCCI, KCC, CNS
Environmental compliance	RoHS
MTBF	1.37 million hours (all 4i and 8i board variants), 2.0 million hours (8i8e and 8i16e), and 1.7 million hours (24i and 16i), measured at 40 °C
Warranty	3 years

Ordering Information

SmartRAID 3100 Series	Part Number	RAID Levels	Host Interface	SAS/SATA Ports	Cache	Cache Width	Cache Backup (ZMCP)	maxCache 4.0
SmartRAID 3154-24i	2294700-R	0, 1, 5, 6, 10, 50, 60, 1 ADM, 10 ADM	8-Lane PCIe Gen3	24 internal	4 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, integrated
SmartRAID-3154-8i16e	2294600-R			8 internal/16 external	4 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, supported
SmartRAID 3154-16i	2295000-R			16 internal	4 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, integrated
SmartRAID-3154-8i8e	2295100-R			8 internal/8 external	4 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, integrated
SmartRAID 3154-8e	2290800-R			8 external	4 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, integrated
SmartRAID 3154-8i	2291000-R			8 internal	4 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, integrated
SmartRAID 3152-8i	2290200-R			8 internal	2 GB DDR4/2100 MHz	64-bit	Yes, integrated	Yes, integrated
SmartRAID 3102-8i	2294800-R			8 internal	2 GB DDR4/2100 MHz	64-bit	No	No
SmartRAID 3151-4i	2294900-R			4 internal	1 GB DDR4/2100 MHz	32-bit	Yes, integrated	Yes, integrated
SmartRAID 3101-4i	2291700-R			4 internal	1 GB DDR4/2100 MHz	32-bit	No	No



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