

# Microsemi Adaptec® Series 8E Family: 8405E, 8805E

## Entry-level 12 Gbps PCIe Gen3 SAS/SATA RAID Adapters

Data center, IT, and general consumer server environments have a broad range of requirements—from basic connectivity to extreme data storage capacities. The Series 8E 12 Gbps PCIe Gen3 SAS/SATA RAID adapters deliver the robustness of hardware RAID in an entry-level solution. They offer significant performance acceleration over other 6Gbps adapter card solutions through basic RAID 0, 1, 10 and built-in cache for cost-effective platforms that don't require the full performance and capabilities of our standard Series 8 RAID adapters. The 8805E, with eight internal SAS/SATA ports, is ideal for applications that require more bandwidth. Both models fit the requirements of industrial PC workstations or entry-level servers. The 8405E and the 8805E support a maximum of four and eight devices respectively, as neither support the use of expanders.



### Maximum Performance for Entry-Level RAID Adapters

Series 8E RAID adapters can also be coupled with 12 Gbps SSDs, providing maximum read/write bandwidth and IOPS for the most performance-hungry applications. The 512 MB DDR3 (1600 MHz) built-in cache (recommended for read and write-through caching) provides maximum acceleration.

### Advanced Data Protection and Ease of Use

Microsemi's Adaptec RAID Code (ARC) delivers maximum reliability with an industry-leading feature set, including all of the RAID levels the industry has come to expect, plus unique features like flexible configuration modes for the adapter, Hybrid RAID, and optimized disk utilization (ODU) where no available space is wasted. Microsemi's Adaptec maxView provides an HTML5 web interface that can be used in standard desktops and mobile browsers for all storage configuration and management needs.

### Benefits

- Ideal for entry-level 12 Gbps servers and workstations for redundant boot support and I/O intensive applications such as databases or video editing
- True hardware RAID 0, 1, 10 (also supports Hybrid RAID)
- Performance acceleration through 512 MB DDR3 (1600 MHz) cache

### Highlights

- 4- and 8-port low-profile MD2 with support for a maximum of 4 and 8 devices respectively
- Mixed mode RAID adapter and caching HBA functionality
- 12 Gbps and 6 Gbps compatibility with SAS/SATA HDD or SSD devices
- 12 Gbps throughput per SAS port using mini-SAS HD connectors
- Microsemi's 12 Gbps RAID-on-Chip (ROC), 8-lane PCIe Gen3 interface with 12 Gbps SAS ports to enable a new generation of performance
- 512 MB DDR3 (1600 MHz) cache
- Up to 500K IOPS

maxView



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<b>Key software features</b>	<ul style="list-style-type: none"> <li>Flexible configuration: HBA mode and auto volume mode for automatic deployment</li> <li>Optimized disk utilization (multiple arrays per disk)</li> <li>Support for native 4K sector SAS and SATA devices in addition to 512-byte sector devices</li> <li>Hybrid RAID 1 and 10</li> <li>Quick initialization</li> <li>Online capacity expansion</li> <li>Copyback hot spare</li> <li>Dynamic caching algorithm</li> </ul>	<ul style="list-style-type: none"> <li>Native command queuing (NCQ)</li> <li>Background initialization</li> <li>Hot-plug drive support</li> <li>RAID level migration</li> <li>Hot spares—global, dedicated, and pooled</li> <li>Automatic/manual rebuild of hot spares</li> <li>SES and SAF-TE enclosure management</li> <li>Configurable stripe size</li> <li>S.M.A.R.T. support</li> <li>Multiple arrays per disk drive</li> <li>Dynamic sector repair</li> </ul>	<ul style="list-style-type: none"> <li>Staggered drive spin-up</li> <li>Bootable array support</li> <li>Support for tape devices and autoloaders</li> <li>MSI-X support for all device drivers for all supported operating systems</li> <li>Secure boot support for the uEFI host BIOS</li> <li>USB image available on start.microsemi.com to boot maxView GUI from any USB device for enhanced GUI-based setup and offline maintenance</li> </ul>
<b>Management utilities</b>	<b>maxView Storage Manager</b> <ul style="list-style-type: none"> <li>Web-based GUI management utility</li> <li>OS support: Windows, Linux, Solaris, VMware</li> <li>Remote configuration, monitoring, and notification</li> <li>Remote firmware updates</li> <li>SMI-S support (CIM provider)</li> <li>SMTP</li> </ul>	<b>ARCCONF</b> <ul style="list-style-type: none"> <li>Command-line interface</li> <li>SMI-S support for VMware</li> </ul> <b>BIOS Configuration Utility (CTRL+A)</b> <ul style="list-style-type: none"> <li>Legacy configuration utility</li> <li>Flashable BIOS support</li> </ul>	<b>uEFI BIOS Configuration Utility</b> <ul style="list-style-type: none"> <li>HTTP-based configuration utility</li> <li>Flashable BIOS support</li> </ul> <b>Event Monitor</b> <ul style="list-style-type: none"> <li>Lightweight event monitoring and logging tool</li> <li>Distributes adapter events and notifies user</li> <li>VMWare vSphere plugin</li> </ul>
<b>Operating systems</b>	Microsoft Windows, Red Hat Linux, SUSE Linux, Fedora, Debian Linux, Ubuntu Linux, Sun Solaris, FreeBSD, VMware ESXi. The latest drivers are available at start.microsemi.com.		
<b>Dimensions</b>	2.535" H x 6.6" L (64 mm x 167 mm)		
<b>Operating temperature</b>	0 °C to 55 °C (with 200 LFM airflow). <b>Note:</b> 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. Temperature measured 1 inch from RAID adapter.		
<b>Operating current</b>	0.1 A at 3.3 VDC, 1.2 A at 12.0 VDC (8405E, 8805E)		
<b>Regulatory certification</b>	CE, FCC, UL, C-tick, VCCI, KCC, CNS		
<b>Environmental compliance</b>	RoHS		
<b>MTBF</b>	2 million hours at 40 °C		
<b>Warranty</b>	3 years		

RAID adapter	8405E	8805E
<b>Order number</b>	2293901-R	2294001-R
<b>RAID levels</b>	0,1,10	0,1,10
<b>Ports</b>	4 internal	8 internal
<b>Connectors</b>	1 SFF-8643	2 SFF-8643
<b>Bus interface</b>	8-lane PCIe Gen3	8-lane PCIe Gen3
<b>Processor</b>	12 Gbps RoC	12 Gbps RoC
<b>Cache</b>	512 MB DDR3 (1600 MHz)	512 MB DDR3 (1600 MHz)
<b>Cache protection</b>	No	No
<b>Number of supported devices</b>	4	8



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