

Adaptec MaxIQ™ Storage Controllers with SSD Caching (2405Q, 5805Q, 5805ZQ)

Up to 8x higher IOPS and 70% reduced costs

Based on our industry-leading Series 5 storage controllers, the MaxIQ family of storage controllers combines the incredible performance of Adaptec's MaxIQ SSD Caching technology with the enterprise-class data protection features of Zero-Maintenance Cache Protection and the energy efficiency of Intelligent Power Management to create our most advanced storage controllers ever.

Adaptec MaxIQ controllers offer both high-I/O transaction and high-bandwidth processing whether configured with cost-effective, high-capacity SATA drives or high-performance SAS drives. Using SSD/HDD hybrid arrays, they deliver up to 8x faster performance and up to 70% cost savings compared to HDD-only arrays.

Adaptec MaxIQ SSD Caching – up to 8x higher IOPS

Adaptec MaxIQ controllers feature a patent-pending Learned-Path Algorithm that identifies frequently read (“hot”) data and copies it directly into an SSD cache (sold separately) for superior read performance. The caching lowers overall system latencies, greatly improving the system CPU-to-storage performance gap.

Adaptec MaxIQ controllers do not require changes to storage architectures, application software or operating systems. I/O-intensive data centres and cloud computing environments can convert industry-standard servers into cost-effective, high-performance, scale-out application storage appliances.

Reduce capital costs by up to 70%

The superior IOPS delivered by Adaptec MaxIQ allows data centres to implement less hardware, thereby reducing capital expenses, as well as energy and maintenance costs.

Save thousands with Zero-Maintenance Cache Protection

Offered on the Adaptec 5805ZQ, Zero-Maintenance Cache Protection maximises performance and extends power savings by protecting controller-cached data without battery backup units and their monitoring, maintenance, replacement and disposal costs. During a system power loss, the flash memory-based cache protection can preserve data for up to 10 years.

Reduce energy costs by up to 70% with Intelligent Power Management

MaxIQ cards include Adaptec Intelligent Power Management to slash power and cooling costs by spinning down idle disks and providing a lower power mode for active disks.

One-view storage management

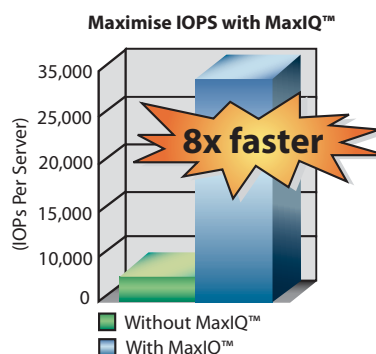
Adaptec MaxIQ controllers operate under Adaptec Storage Manager, a one-view tool that centralises management of all Adaptec storage controller products.

Compatibility, reliability and support

Adaptec MaxIQ controllers support all major operating systems, and have been extensively tested with more than 300 third-party components to deliver the utmost in compatibility. The cards are backed by a three-year warranty and Adaptec's legendary technical support.

Product Highlights

- Up to 8x higher IOPS
- Reduced capital & operating costs
- Adaptec MaxIQ™ SSD Caching Support
- Patent-pending Learned-Path algorithm
- Zero-Maintenance Cache Protection (5805ZQ only)
 - Replaces lithium-ion batteries
 - No need to monitor battery charge level
 - No shutdown required for battery replacement
 - Stores protected data for up to 10 years
- Intelligent Power Management
- Ideal for applications with high-performance, read-intensive workloads
- 4- or 8-port low-profile MD2
- RAID 0, 1, 1E, 5, 5EE, 6, 10, 50, 60, JBOD (5805Q & 5805ZQ)
- RAID 0, 1, 1E, 10, JBOD (2405Q)
- Broad industry compatibility – over 300 devices



MaxIQ™

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Adaptec MaxIQ™ Storage Controllers with SSD Caching and Zero-Maintenance Cache Protection (ZMCP)	
Why buy?	Adaptec MaxIQ SSD Caching provides up to 8x the performance of HDD-only arrays. These controllers support both SATA and SAS devices. Ideal for bandwidth-intensive storage applications; online transaction processing (OLTP), web servers, digital surveillance and streaming.
Customer Needs	High-I/O transaction and high-bandwidth processing
Intelligent Power Management	Automated customer-configurable feature that reduces disk drive energy use by up to 70% without compromising application performance. See Adaptec compatibility report for a list of supported disk drives.
RAID Features	<ul style="list-style-type: none"> - Supports up to 256 SATA or SAS devices using SAS expanders (Adaptec 5805Q and 5805ZQ) - Supports up to 128 SATA or SAS devices using SAS expanders (Adaptec 2405Q) - RAID levels 0, 1, 1E, 5, 5EE, 6, 10, 50, 60 and JBOD (Adaptec 5805Q and 5805ZQ) - RAID levels 0, 1, 10, JBOD (Adaptec 2405Q) - Quick initialisation - Online Capacity Expansion - Copyback Hot Spare - Dynamic caching algorithm - Native Command Queuing (NCQ) - Background initialisation - Hot-plug drive support - RAID Level Migration - Hot spares – global, dedicated and pooled - Automatic/manual rebuild of hot spares - SAF-TE enclosure management - Configurable stripe size - S.M.A.R.T. support - Multiple arrays per disk drive - Dynamic sector repair - Staggered drive spin-up - Bootable array support - Optimized Disk Utilization
Management Utilities	<p>Adaptec Storage Manager™ (ASM)</p> <ul style="list-style-type: none"> - Java-based GUI Management Utility - Remote configuration, monitoring and notification - ASM OS Support: Windows, Linux, SCO, Solaris, - Microsoft VDS Support - SNMP; SMTP - Remote firmware updates <p>ARCCONF</p> <ul style="list-style-type: none"> - Command Line Interface <p>Adaptec BIOS Configuration Utility (ACU)</p> <ul style="list-style-type: none"> - BIOS-level configuration utility - Flashable BIOS support
Operating System	<ul style="list-style-type: none"> · Windows Server 2008, Windows Server 2008 R2, Windows Server 2003, Windows XP, Windows Vista, Windows 7 · SUSE Linux Enterprise Server 9.4 & 10.3, Red Hat Enterprise Linux 4.8 & 5.4, open source drivers · FreeBSD 6.4, 7.2 & 8.0 · VMware 3.5 U3, 4.0 · Solaris 10 U7 · SCSO OpenServer 6.0, UnixWare 7.1.4
Physical Dimensions	64mm H x 167mm L
Operating Temperature (incl. battery as appropriate)	0°C to 35°C (without airflow) 0°C to 55°C (with 200 LFM airflow)
Operating Voltage	Adaptec 2405Q: 0.5A @ 3.3V; 0.9A @ 12V Adaptec 5805Q: 0.45A @ 3.3V; 1A @ 12 Adaptec 5805ZQ: 0.40A @ 3.3V; 1.2A @ 12V
Regulatory Certification	CE, FCC, UL, C-tick, VCCI
MTBF	873,402 hours at 40°C
Warranty	Three years
Accessories	Adaptec Battery Module 800 (2248000-R), Adaptec Battery Module 800T (2263800-R)

Adaptec Storage Controller	5805ZQ	5805Q	2405Q
Order Part Number	2268600-R	2268500-R	2268300-R
Form Factor	MD2 – Low-Profile	MD2 – Low-Profile	MD2 – Low-Profile
Ports	8 internal	8 internal	4 internal
Connectors	2 SFF 8087 (int.)	2 SFF 8087 (int.)	1 SFF 8087 (int.)
Bus Interface	8-Lane PCIe	8-Lane PCIe	8-Lane PCIe
Processor	1.2 GHz Dual Core RoC	1.2 GHz Dual Core RoC	800MHz Dual Core
Cache	512MB Write, 4GB NAND	512MB Write	128MB Write
RAID Levels Supported	0, 1, 1E, 5, 5EE, 6, 10, 50, 60, JBOD	0, 1, 1E, 5, 5EE, 6, 10, 50, 60, JBOD	0, 1, 1E, 10, JBOD



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