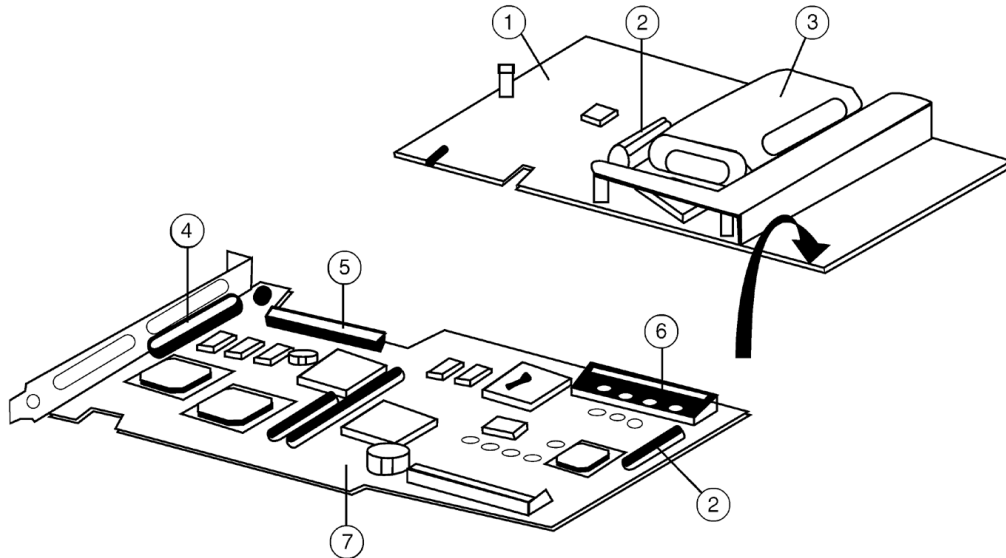


Overview



1. Battery Module board
2. Battery Module Connector
3. Battery
4. External Ultra2 SCSI connector
5. Internal 68-pin SCSI connector
6. Cache memory DIMM sockets (16 MB installed)
7. KZPCC Backplane RAID Controller main board

Models

DS-KZPCC-AC (Rev D01)

Key Features

- I₂O shell compliant interface
- RAID Level: 0, 1, 5, 0 + 1, 0 + 5, and JBOD
- One Ultra2/LVD Channel
- Tru64 UNIX® V4.0F, 4.0G, V5.1, V5.1A and V5.1B boot support, TruCluster V5.1A and V5.1B
- Support for StorageWorks Command Console (SWCC)
- Alpha SMOR off-line configuration utility
- Add storage capacity on-line
- Battery backup of 24 hours with 16-MB of cache memory
- Hot, warm, and cold swap
- Up to 14 devices per channel (only seven drives with the StorageWorks Enclosure Model 4254 Ultra2/LVD and 4354 Ultra 3/LVD device shelves)
- Internal Card Cage (BA610-6D) on AlphaServer DS20E, ES40, and ES45

Benefits at a Glance

- Supports 9.1-GB, 18.2-GB, 36.4-GB, 72.8-GB, and 146-GB disk drives
- Ultra2/LVD support for AlphaServers
- 16-MB Cache
- Supports up to 14 SCSI devices per channel (with StorageWorks Enclosure 4314 Ultra3/LVD) *
- Support for Internal Card Cage (BA610-6D) on AlphaServer DS20E, ES40, and ES45

NOTE: * Dual bus configuration on the StorageWorks Enclosure Model 4254 Ultra2/LVD and 4354 Ultra3/LVD device shelves only allows seven drives per channel.

Overview

Product Description

The Single-Channel Backplane RAID Controller (DS-KZPCC-AC) is a high-performance 1-channel, 64-bit PCI to Ultra2/LVD SCSI backplane RAID controller with 16-MB cache and battery backup.

DS-KZPCC-AC is supported on the following AlphaServers/AlphaStations:

Systems	Maximum Supported	NOTES
AlphaServer 800	1	Supported as a data device only. No boot support.
AlphaStation XP1000	1	
AlphaServer DS10, AlphaStation XP900	2	
AlphaServer DS20E (EV67 Pass 2.6 and up and EV68 CPUs)	2	
AlphaServer DS25	3	
AlphaServer ES40	8	
AlphaServer ES45	8	
AlphaServer GS80, GS160, GS320	8	

The DS-KZPCC-AC controller is supported with the following versions of the Tru64 UNIX operating system:

- Tru64 UNIX V4.0F with required New Hardware Delivery – 3 Kit (NHD 3) or later – CD-ROM part number is QA-MT4AX-H8
- Tru64 UNIX V4.0G
- Tru64 UNIX V5.1 with Patch Kit 4 or later
- Tru64 UNIX V5.1A
- Tru64 UNIX V5.1B
- TruCluster V5.1A; requires Patch Kit 1 (BL1) (T64V51AB01AS0001-2002mmdd.tar) or later
- TruCluster V5.1B

Minimum Supported Hardware/Software Revisions for DS-KZPCC-AC
Controllers for Tru64 UNIX V4.0F, V4.0G, V5.1, and V5.1A

Tru64 UNIX Versions	V4.0F with NHD3	V4.0G	V5.1 with PK4	V5.1A	V5.1B	BA610-6D Enclosures
Hardware	A01	C01	C01	D01	D01	D01
Firmware	CQZ2	CQZ2	CQZ2	CQ16	CQ16	CQ16
SMOR	Smor 0021.111	Smor 0033.112	Smor 0033.112	Smor 0033.112	Smor 0033.112	Smor 0033.112
SWCC	V2.2	V2.3	V2.3	V2.3	V2.31	V2.3
SRM console	V5.7	V5.8*	V5.8*	V6.0	V6.0	V6.0

* 6.0 SRM console revision (or higher versions when released) is recommended

Product Highlights

Capacity

- Supports up to 14 SCSI drives per channel on StorageWorks Enclosure 4314 Ultra3/LVD (only seven drives with the StorageWorks Enclosure Model 4254 Ultra2/LVD and 4354 Ultra3/LVD device shelves)
- Supports 9.1-GB and 18.2-GB Ultra2 drives; 9.1-GB, 18.2-GB, 36.4-GB, 72.8-GB, and 146-GB Ultra320/Ultra3/Ultra2 10K rpm capable drives; 9.1-GB and 18.2-GB Ultra3/Ultra2 15K rpm capable drives (Only supports Ultra320/Ultra3 drives at Ultra2 speeds)
- Supports online storage capacity adds
- Supports Six Slot Internal Card Cage (BA610-6D) on AlphaServer DS20E, ES40, and ES45

Manageability

Support for StorageWorks Command Console (SWCC) & Alpha SMOR off-line configuration utility.

Options Supported

KZPCC 16-MB Memory Cache Replacement
KZPCC Battery Backup Replacement

DS-MS100-DC
DS-KZPCC-UB

Service and Support

- Software Product Services**
- Stand-alone telephone support
 - Rights to new license version
 - Media and documentation updates

- Hardware Product Services**
- Installation services
 - On-site maintenance (includes warranty support)
 - Response time upgrades during the warranty period
 - Post-warranty coverage
 - RAID setup and performance consulting via statement of work

For additional hardware installation and maintenance information, refer to the following Web pages:

http://h18005.www1.hp.com/services/arepaq/us/install/cp_storage.html
http://h18005.www1.hp.com/services/arepaq/us/hardware/cp_storage.html

- Warranty Upgrade Options**
- Response - Upgrade on-site response from next business day to same day 4 hours
 - Coverage - Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours
 - Duration - Select duration of coverage for a period of 1, 3, or 5 years

NOTE: Certain restrictions and exclusions apply. Consult the Customer Support Center for details.

HP Care Pack Information	3-year, uplift to 5 x 9, Next Day Response	FM-**XHW-36
Sample part numbers:	3-year, uplift to 5 x 9, 4-hour Response	FM-**4HR-36
	3-year, uplift to 7 x 24, 4-hour Response	FM-**724-36

** represents a two-digit, product-specific code

- HP Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.
- HP Care Pack is not available for less than the product's warranty duration.
- HP Care Pack is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required.
- HP Care Pack services are prepaid.

For additional HP Care Pack (hardware & software) information as well as orderable part numbers, refer to the following Web page: <http://h18005.www1.hp.com/services/arepaq/index.html>

Components

The following brick-level options/components do not have individual HP Care Pack services. These items will be included in product HP Care Pack services into which they are installed.

Disk Drives	Tape Drives	CD/DVD ROM	SCSI Hubs in SBBs	Adapters
Bus Converters	Backplane RAID Controllers	Power Supplies	Cabling	Fans

Technical Specifications

DS-KZPCC-AC Backplane Raid Controller Specifications

Protocol Support	Ultra2/LVD		
Processor Support	EV6, EV67, and EV68		
Drive Support	9.1-GB and 18.2-GB Ultra2 drives 9.1-GB, 18.2-GB, 36.4-GB, 72.8-GB, and 146-GB Ultra320/Ultra3/Ultra2 10K rpm capable drives 9.1-GB and 18.2-GB Ultra3/Ultra2 15K rpm capable drives (Only supports Ultra320/Ultra3 drives at Ultra2 speeds)		
O/S Support	Tru64 UNIX V4.0F with required New Hardware Delivery – 3 Kit (NHD 3) or later, Tru64 UNIX V4.0G Tru64 UNIX V5.1 with Patch Kit 4 or later, Tru64 UNIX V5.1A, Tru64 UNIX V5.1B TruCluster V5.1A with Patch Kit 1 (BL1) (T64V51aB01AS0001-2002mddd.tar) or later TruCluster V5.1B		
UPC Codes	DS-KZPCC-AC	613326186718	
	DS-MS100-DC	613326186725	
Environmental	Temperature	Operating	32° to 127° F (0° to 55° C)
	Relative Humidity	Operating	10% to 90% non-condensing
	Altitude	Operating	0 to 9,842.5 ft (0 to 3,000 m)
Mechanical Specifications	Dimensions (HxWxD)	Product	0.67 x 12.35 x 3.87 in (1.7 x 31.37 x 9.84 cm)
		Shipping	2.75 x 16.5 x 9.5 in (6.98 x 41.91 x 24.13 cm)
	Weight	Product	1.1 lb (0.499 kg)
		Shipping	2 lb (0.907 kg)
Electrical	Under normal operating conditions the power characteristics of the adapter are as specified in the following table:		
	Specification	Value	
	Power Dissipation	25W Maximum	
	Current Requirement	1.87A typical	
	Input Voltage Requirement	5V ± 5%	
	Power Supply Voltage Ripple Requirement	50mV peak-to-peak maximum	
Reliability	MTBF = 500,000 hours @ 86°F/30°C		

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