



maximum uptime



hp netRAID-2M
product brief



hp netservers
simply reliable

hp netRAID-2M controller for hp netservers

reliable data protection and performance in a streamlined design

Information technology professionals rely on HP NetRAID disk array controllers to ensure maximum server uptime and data protection across the enterprise. The HP NetRAID-2M controller provides superior internal and external RAID (redundant array of inexpensive disks) performance in rack-optimized and departmental HP Netserver solutions.

leading performance

- Ultra3 SCSI technology—increases maximum throughput rate to 160 MB/sec per channel
- 64-bit, 66 MHz PCI—the latest PC technology maximizes the performance of the Intel® i960RN I/O processor
- Two channels—allows your array to span up to 28 disks
- Broad system support—interfaces with most HP Netserver products

high availability and data protection

- Full cluster support—allows seamless access to data assets in the event of a server failure
- RAID levels 0, 1, 5, 10, and 50—optimize protection and performance
- Standard battery backup—for up to 72 hours of data protection

efficient management

- Graphical user interface—ensures intuitive installation and configuration
- HP NetRAID Assistant and HP NetRAID Monitor utilities—centralize event notification
- Configuration replication and storage—preserve your configuration in the event of controller failure

Ultra3 technology protects data and investments

- Cyclical redundancy checking (CRC)—adds an extra measure of error prevention during data transfer
- Domain validation—automatically tests and adjusts the SCSI transfer rate to ensure each drive communicates at the highest possible rate
- Compatibility—provides a bridge between Ultra2 and Ultra3 drives

specifications

Supported RAID levels	0, 1, 5, 10, and 50
SCSI connectors	two 68-pin high-density internal connectors; two 68-pin, very-high-density external connectors
SCSI channels	2
Devices per SCSI channel	Up to 14
SCSI device types supported	Synchronous or asynchronous
SCSI bus	Single-ended or LVD (low voltage differential)
SCSI data transfer rate	Fast, Ultra, Ultra2, Ultra3
SCSI termination	SCSI active termination
Termination disable	Through jumper configuration
Card size	6.875" x 4.2" (half-length PCI)
Multiple cards	Up to 6 HP NetRAID family adapters (varies by server)
Bus type	PCI 2.1 (64-bit bus) 66 MHz
Bus data transfer rate	Up to 512 MB/sec
Processor	Intel i960RN @ 100 MHz
Cache configuration	64 MB or 128 MB SDRAM
Nonvolatile RAM	32K x 8 for storing RAID configuration
BIOS	HP NetRAID BIOS
Tone generator	Audible warnings indicate degraded drives, offline drives, and drive rebuilds
Battery backup	Standard
Warranty	1-year return to HP or system matching when installed in an HP Netserver

supported operating systems

Microsoft® Windows NT® 4.0 and Windows® 2000; Novell NetWare 5.1 and 6.0; SCO OpenServer 5.x; SCO UnixWare 7.x; and Red Hat Linux 7.0*.

* Only available on HP Server LP1000r and HP Server LP2000r

supported servers

E60, E800, tc3100, tc4100, LC 3, LC2000, LH3, LH3000, LH 4, LH6000, LPr, LP1000r, LP2000r, LT6000r, LXR8000, and LXR8500

ordering information

description	product no.
HP NetRAID-2M controller with 64 MB cache	P3411A
HP NetRAID-2M controller with 128 MB cache	P3475A
HP NetRAID-2M controller with 64 MB cache*	P3411B
HP NetRAID-2M controller with 128 MB cache*	P3475B
* Required for use with HP Server tc3100 and HP Server tc4100	
HP internal Ultra3 SCSI cable kit for use with various HP Netserver	P3469A

Cables used to connect the NetRAID-2M controller to external storage:

HP Netserver Storage System/6	
– 2.5-meter SCSI cable, HD to VHD offset	D6020A
HP Netserver Rack Storage/8	
– 2.5-meter SCSI cable, HD to VHD offset	D6020A
HP Netserver Rack Storage/12	
– 1-meter SCSI cable, HD to VHD offset	D7131A
– 5-meter SCSI cable, HD to VHD offset	D6982A
– 10-meter SCSI cable, HD to VHD offset	D6983A
HP DiskSystem 2300 (ds2300)	
– 2-meter SCSI cable, VHDS68 M/M Multimedia	C2373A
– 5-meter SCSI cable, VHDS68 M/M Multimedia	C2374A
– 10-meter SCSI cable, VHDS68 M/M Multimedia	C2375A

for the latest information

For additional information on HP products and services, visit us at <http://www.hp.com> or contact any of our worldwide sales offices or HP Channel Partners.

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