

hp server
connectivity



Ultra160
SCSI adapter



hp delivers performance and flexibility

two Ultra160 LVD SCSI channels on one PCI adapter doubles performance and saves valuable slot space

The HP A6829A PCI Dual-Channel Ultra160 SCSI host bus adapter delivers the performance and flexibility required for today's high-bandwidth servers. The 160 MB/second maximum data transfer rate across each of two independent Ultra160 SCSI buses makes it a perfect match for high-throughput applications such as data mining, streaming video, and scientific modeling. The A6829A adapter's 64-bit PCI interface maximizes the capability of the dual SCSI channels by increasing the throughput on the PCI bus to a maximum of 320 MB/second, preventing a system bottleneck from hindering data flow. This PCI interface doubles the PCI bandwidth from 133 MB/second to 266 MB/second, enabling maximum system throughput for both Ultra160 SCSI channels. This adapter also fits into 32-bit PCI slots, enabling users to qualify a single adapter for all server platforms regardless of the PCI architecture.

Complementing the Ultra160 SCSI offering is the HP A6828A Single-Channel PCI Ultra160 SCSI PCI host bus adapter—perfect for configurations requiring a single channel with all the features and functionality of Ultra160 SCSI.

With Ultra160 low voltage differential (LVD) SCSI technology, extended cable lengths of 12 meters for a fully loaded bus (or 25 meters for point-to-point connections) make this adapter ideal for disk clustering and RAID configurations.

The A6829A and A6828A PCI Ultra160 SCSI host bus adapters deliver superior I/O performance. Ultra160 technology doubles previous Ultra2 SCSI data transfer rates. With two channels, A6829A host adapter delivers up to 320 MB/second bandwidth.

The A6829A and A6828A PCI Ultra160 SCSI host bus adapters support both single-ended (SE) and LVD devices. When a single-ended device is attached, the card defaults to single-ended mode. With Ultra160 LVD devices, the adapter uses LVD mode and can perform at full Ultra160 speeds.

Ultra160 SCSI devices are widely available today. Ultra160 LVD is the industry standard for high performance and low cost. These adapters enable the best speed, compatibility, and technology available today. HP has led the way into Ultra160 LVD SCSI, while many of our competitors have been too slow to move to the latest technologies.

customer benefits

- up to 160 MB/s data transfer rate on two Ultra160 SCSI channels on a single PCI slot
- connect up to 30 SCSI devices (15 per channel)
- advanced multimode I/O supports Ultra160 LVD or legacy SE devices
- extended 12-meter cable length

application areas

Web-based Internet/intranet information distribution and transaction processing requires both fast response times and high availability. The Ultra160 SCSI host bus adapters make the SCSI link fast and reliable.

High productivity client/server systems require high-bandwidth, high-availability paths between the client, server, and data. The A6829A and A6828A with HP MC/Serviceguard and Logical Volume Manager (LVM) provide the high-speed, high-availability link between the server and the data.

Database backup demands very high bandwidth and availability to ensure one-pass backup. This is an ideal application for the HP Ultra160 SCSI adapters.

The A6829A and A6828A Ultra160 SCSI host bus adapters are perfect for solutions requiring high performance connections for voice, video, streaming, multimedia, and high-end applications.

All high-performance mass storage demands high availability and high throughput. The A6829A and A6828A Ultra160 SCSI host bus adapters meet the need.

features	benefits
Ultra160 SCSI host bus adapters	
two high-speed Ultra160 SCSI channels on one PCI card (A6829A)	<ul style="list-style-type: none">• saves valuable PCI slots• wide Ultra160 LVD SCSI is the leading edge of SCSI performance and reliability
up to 160 MB/second maximum burst rate on each channel	<ul style="list-style-type: none">• high-speed data transfer rates mean faster access to data and files• faster database queries and accesses• faster backup
mc/serviceguard and LVM	<ul style="list-style-type: none">• high availability through automatic switchover to alternate adapter path
customer installable hardware and software	<ul style="list-style-type: none">• easy customer installation and configuration means less reliance on HP assistance
multimode LVD (low voltage differential) and SE (single ended)	<ul style="list-style-type: none">• backwards compatibility to SE enables easy integration with existing environment
long cable lengths	<ul style="list-style-type: none">• up to 12 meters with LVD; increased cable length provides greater flexibility in system configuration, especially in clustering and RAID applications
up to 15 devices per channel in a daisy-chain fashion	<ul style="list-style-type: none">• meets need for large disk arrays, multiple disks, and JBODs

specifications at a glance

host bus adapter card	A6829A	A6828A
PCI form factor	<ul style="list-style-type: none"> • standard PCI • L=8.95 in (22.7 cm) • W=4.25 in (10.7 cm) • H=0.72 in (1.8 cm) 	<ul style="list-style-type: none"> • standard PCI • L=8.95 in (22.7 cm) • W=4.25 in (10.7 cm) • H=0.72 in (1.8 cm)
PCI	<ul style="list-style-type: none"> • PCI specification v2.1 • PCI 4X (64-bit, 66 MHz) • universal (3.3V and 5V) 	<ul style="list-style-type: none"> • PCI specification v2.1 • PCI 4X (64-bit, 66 MHz) • universal (3.3V and 5V)
SCSI channels	• 2	• 1
connectors	• (2) external 68-pin VHDCI*	• (1) external 68-pin VHDCI*
configuration	• channels independently configurable	• channel independently configurable
termination	<ul style="list-style-type: none"> • active automatic termination • self-resetting term-power fuse 	<ul style="list-style-type: none"> • active automatic termination • self-resetting term-power fuse

*VHDCI=very high density cable interconnect

platforms and maximum cards supported

superdome	• 96	• 96
rp8400	• 16	• 16
rp7400 series	• 12	• 12
rp5400 series	• 10	• 10
rp2400 series	• 3	• 3

operating system support

hp-ux	• 11.0 and later	• 11.0 and later
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environmental/regulatory specifications

temperature	<ul style="list-style-type: none"> • non-operating: -40° to +70° C (-40° to 158° F) • operating: +5° to +40° C (41° to 104° F) • recommended operating: +10° to +40° C (50° to 104° F) 	<ul style="list-style-type: none"> • non-operating: -40° to +70° C (-40° to 158° F) • operating: +5° to +40° C (41° to 104° F) • recommended operating: +10° to +40° C (50° to 104° F)
humidity	• recommended operating: 40% to 60% RH at 22° C (70° F)	• recommended operating: 40% to 60% RH at 22° C (70° F)
altitude	• 10,000 ft (3.1 km)	• 10,000 ft (3.1 km)
electromagnetic compatibility	<ul style="list-style-type: none"> • North America: FCC class A • international: EN 55022 class A 	<ul style="list-style-type: none"> • North America: FCC class A • international: EN 55022 class A

cables/terminators

recommended VHDCI to 68-pin HD SCSI cables

C2361B	• 1.0m VHDCI to 68-pin HD	• 1.0m VHDCI to 68-pin HD
C2362B	• 2.5m VHDCI to 68-pin HD	• 2.5m VHDCI to 68-pin HD
C2365B	• 5.0m VHDCI to 68-pin HD	• 5.0m VHDCI to 68-pin HD
C2363B	• 10.0m VHDCI to 68-pin HD	• 10.0m VHDCI to 68-pin HD

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specifications at a glance *(continued)*

cables/terminators *(continued)*

recommended VHDCI to VHDCI SCSI cables

C2372A	• 1.0m VHDCI to VHDCI	• 1.0m VHDCI to VHDCI
C2373A	• 2.0m VHDCI to VHDCI	• 2.0m VHDCI to VHDCI
C2374A	• 5.0m VHDCI to VHDCI	• 5.0m VHDCI to VHDCI
C2375A	• 10.0m VHDCI to VHDCI	• 10.0m VHDCI to VHDCI

recommended LVD/SE multimode SCSI terminators

C2364A	• 68-pin HD LVD/SE multimode terminator	• 68-pin HD LVD/SE multimode terminator
C2370A	• VHDCI LVD/SE multimode terminator	• VHDCI LVD/SE multimode terminator

Note: This card is self-terminating when no cable is attached. However, a terminator is required on the final device in the SCSI chain. The appropriate terminator for that device should be ordered and utilized.

ordering information

A6829A or A6828A

option #OD1	• factory integrated
option #AVN	• release notes

restrictions and limitations

- HVD (high voltage differential) devices are not supported

for more information

For additional information on this or other HP enterprise networking solutions, please visit us on the Web at <http://www.hp.com/go/hp9000io>, or contact any of our worldwide sales offices or HP Channel Partners.

(in the U.S., call 1 800 637 7740)

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HP product information and technical documentation is available online. In addition, configuration tools and pricing information allow registered users to place orders online.

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