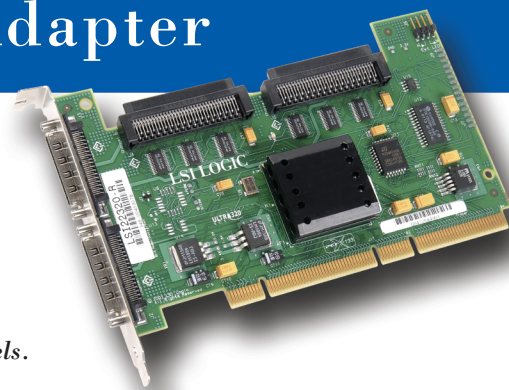# LSI22320-R
SCSI Host Adapter

The LSI22320-R Ultra320 SCSI host adapter offers the highest Ultra320 SCSI performance with two internal and external channels.

KEY APPLICATIONS

• Enterprise to mid-range servers

• High-performance workstations

• RAID (1)

FEATURES

• Ultra320 SCSI, PCI-X 133MHz

• 640 MBps of Ultra320 performance on two channels

• Fusion-MPT™ architecture featuring 100,000 I/Os

• Integrated Mirroring for boot volume and OS protection

• Connects up to 30 internal/ external devices such as JBOD, RAID, hard disk drives

• SureLINK™ technology ensures data integrity by intelligently validating the compatibility of the SCSI domain

• Supports all major OSs

Host Bus:
64-bit, 133 MHz PCI-X

SCSI Chip: LSI53C1030

SCSI Bus:
16-bit LVD or Single-Ended

SCSI Performance:
Ultra320 (320 MBps/channel)

SCSI Connector Config:
Internal: (2) 68-pin HD
External: (2) 68-pin VHDCI

Max SCSI Devices: 30

DELIVERING THE SPEED AND BANDWIDTH REQUIRED BY TODAY'S DATA INTENSIVE STORAGE APPLICATIONS

The LSI Logic LSI22320-R Ultra320 SCSI Dual Channel host adapter delivers the speed and bandwidth required by today's data intensive storage applications. With 640 MBps and capability of up to 100,000 I/Os per second, this adapter is ideal for enterprise servers and high performance workstations working in environments where data intensive, high capacity and high availability applications are being used. It also features Integrated Mirroring for increased data protection. Today's most popular applications include data warehousing, video streaming, Internet, email, printing, financial management and other storage intensive applications.

The LSI22320-R adapter features two independent Ultra320 SCSI channels allowing an aggregate SCSI speed of 640 MBps. It supports up to 30 external/internal devices for the greatest flexibility in a SCSI solution. With PCI-X throughput of up to 1056 MBps, this adapter also capitalizes on maximum system performance for those systems needing it; yet is backward compatible with existing PCI systems. It features LSI Logic SureLINK domain validation technology ensuring data integrity by intelligently testing the network before completing negotiation. It also utilizes Fusion-MPT architecture that allows for thinner drivers for better performance (up to 100,000 I/Os per sec) while adding value and flexibility at the firmware level. This flexibility and rich feature set makes options like Integrated Mirroring, instantaneous physical mirroring of boot drive for volume and OS protection, available.

WARRANTY

For more than 15 years, LSI Logic host adapters have been providing high-performance SCSI solutions to leading server, disk array and computer systems worldwide. Each host adapter carries a powerful chip built in LSI Logic's ISO 9001-certified fabrication facilities. Using only the highest quality components, LSI Logic host adapters are assembled and tested in world-class facilities to assure superior product reliability and performance. Because of stringent quality management programs, our host adapters carry a five-year limited warranty.

HOST ADAPTERS

LSI22320-R SCSI Host Adapter

Technical Specifications

PCI Bus	64-bit, 133 MHz PCI-X, backward compatible with PCI
PCI Modes	Bus master DMA
PCI Data Burst Transfer Rate	132 MB/second (PCI 32-bit bus @ 33 MHz) 264 MB/second (PCI 64-bit bus @ 33 MHz) 528 MB/second (PCI 64-bit bus @ 66 MHz) 800 MB/second (PCI-X 64-bit bus @ 100 MHz) 1056 MB/second (PCI-X 64-bit bus @ 133 MHz)
PCI Card Type	Universal add-in card (3.3V and 5.0V signaling)
PCI Voltage	+5V ±5%
PCI Form Factor	4.2" x 6.6"
PCI Power	17 Watts, 3.2A @ +5VDC power
Bracket	ISA/EISA, full height
Certification Level	PCI 2.2, PCI-X 1.0a, PCb2001 1.0
SCSI Bus	Wide Ultra320, LVD (Low Voltage Differential) and Ultra Wide SE (Single-Ended) 640 MBps for two SCSI channels
SCSI Processor	LSI53C1030

Connectors	External	Internal
Channel A Channel B	68-pin VHDCI 68-pin VHDCI	68-pin HD 68-pin HD

Termination	Universal (LVD/SE) termination Automatic cable detection per channel Software disable per channel
Termination Power	Self resetting 1.5A fuse per channel
LED Indicators	4-pin header for off-board LEDs, heartbeat LED
BIOS Flash Memory	512K x 8 flash EEPROM
IM Memory	32K x 8 NVSRAM to support Integrated Mirroring write journaling
Subsystem ID	SVID – 1000h
	SSID – 1010h

Environments	Operating	Storage
Temperature	0°C to 55°C	-40°C to +105°C
Relative Humidity	5 to 90% non-condensing	5 to 90% non-condensing
MTBP	>300,000 hours	
Compliances	CE, VCCI, Canada, C-Tick, FCC class B, UL 94VO, BSMI, MIC	

Software Support

OS Support	Versions
Windows	NT4.0, SP4 and above, 2000, 2000 SP1 and XP
Linux	2.2 and 2.4 kernels
NetWare	4.11, 4.2 and 5.X
UnixWare	2.12 and 7.X
SCO Unix	5.X
OS/2	3.0 or greater
Solaris	X86 versions 2.6, 2.7, and 2.8
Sun Solaris	Versions 2.6 and greater, Open Boot PROM version 3.0 and greater
Utilities	Install, Flash, SCSI format, BIOS configuration, and NT configuration
Domain Validation	Windows NT, 2000 and XP/levels 1, 2, and 3
Data Protection	CRC and AIP
Device Support	OBDR (Tape Booting) and Bootable CD-ROM

For more information please visit the LSI Logic web sites at:
http://storageio.lsilogic.com
http://adapters.lsilogic.com

LSI Logic Corporation
North American Headquarters
Milpitas, CA
Tel: 866 574 5741 (within U.S)
408 954 3108 (outside U.S.)

Host Adapter Group
Southborough, MA
Tel: 888 429 0425
FAX: 508 485 0303

LSI Logic Europe Ltd.
European Headquarters
United Kingdom
Tel: 44 1344 426544
Fax: 44 1344 481039

LSI Logic KK Headquarters
Tokyo, Japan
Tel: 81 3 5463 7165
Fax 81 3 5463 7820

ISO 9001 Certified

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