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)

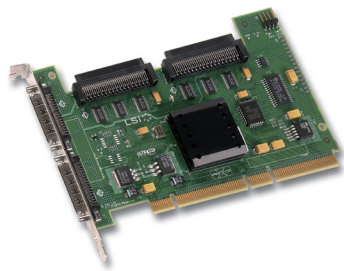### FEATURES

- 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

Delivering the speed and bandwidth required by today's data intensive storage applications

The LSI 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 environ- ments 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 exist- ing PCI systems. It features LSI 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.

OS Independent Hardware RAID (0,1)

LSI Integrated RAID provides the reliability and performance benefits of disk mirroring (RAID 1) and striping (RAID 0). Integrated Mirroring™ (IM) provides data protection for the system boot volume by simultaneously writing redundant data across two to six disks. This provides fault tolerance and safeguards critical information. Integrated striping yields enhanced performance by aggregating the bandwidth of up to six disk drives. Integrated Striping provides a significant boost in applications where maximum perfor- mance is essential. LSI Integrated RAID is OS- independent and does not require the use of special device drivers.

Dependable Quality and Reliability

For more than 15 years, LSI has provided high- performance SCSI HBA solutions to leading server, disk array, and systems providers worldwide. Using only the highest quality components, LSI 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 three year limited warranty.

Wide Range of OS & System Support

The LSI22320-R supports all key 32-bit and 64-bit versions of Microsoft Windows, Linux, Solaris and x86, IA64, SPARC, and AMD64 system architectures. With this broad base of OS and system support, the LSI22320-R is the ideal choice for attaching the most powerful hard disk drives and SCSI peripherals to your workstation or server.

LSI22320-R SCSI HOST ADAPTER		
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	68-pin VHDCI	68-pin HD
Channel B	68-pin VHDCI	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	
OS Support	Micrsoft 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 5x 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	
Ordering Information	LSI22320RB-F	Individually packaged box with LSI22320-R HBA and CD with drivers, management utilities and user's guide

ULTRA320 SCSI

For more information and sales office locations, please visit the LSI web sites at: lsi.com lsi.com/contacts

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