LSI

# LSI20320-R

## Ultra320 SCSI Single-Channel Host Bus Adapter





#### A P P L I C A T I O N S

- High performance workstations
- Entry-level and mid-range servers

#### TYPICAL USES

- Data intensive applications including print, email, web and database servers
- CAD
- Video/audio editing
- Data mining
- Desktop publishing
- Scientific simulation

#### FEATURES

- PCI-X to single-channel Ultra320 SCSI adapter
- Fusion-MPT<sup>™</sup> architecture
- Integrated Hardware RAID (0,1)
- TolerANT<sup>™</sup> technology improves signal quality
- SureLINK<sup>™</sup> domain validation optimizes device connections
- Optional low profile bracket (MD2 form factor)
- Supports all major operating systems

### Enjoy Unrivaled Ultra320 SCSI Performance and Reliability

#### **KEY ADVANTAGES**

- Incredible Single-Channel Ultra320 SCSI Performance
- Exceptional Data Reliability and Signal Quality

#### Step Up to Ultra320 Performance

The LSI LSI20320-R Ultra320 SCSI singlechannel host adapter is the right choice for increasing storage performance within servers and high-performance workstations. With 320MB/s throughput and capability of up to 50,000 I/Os per second, this adapter is ideal for quickly moving large amounts of data. Designed to provide a dedicated connection to Ultra320 disk drives or storage enclosures, the LSI20320-R delivers sensational performance.

#### **Exceptional Signal Integrity**

The LSI20320-R not only moves data blazingly fast, it also insures unmatched data reliability and signal quality. With LSI TolerANT technology, the card improves data integrity in less than ideal cabling environments. This is done through active negation on the drivers and input filtering on receivers of the controller. SureLINK domain validation verifies that all devices are able to communicate at the negotiated SCSI transfer rate and optimizes the connection between the card and each device on the bus. The net result is exceptional data reliability optimized performance. Powered by Fusion-MPT based on LSI's Fusion-MPT (Message Passing Technology) architecture, the LSI20320-R provides outstanding I/O performance while allowing extremely high

- Integrated Hardware RAID (0, 1)
- Wide Range of OS and System Support

host processor efficiency. Fusion-MPT permits an exceptionally thin device driver that's common to all Fusion-MPT devices for a given OS. This promotes higher performance and greatly reduces the integration and testing effort for systems already qualified using Fusion-MPT powered devices.

#### 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<sup>™</sup> (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 performance 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 highperformance SCSI HBA solutions to leading server, disk array, and systems providers world wide. 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 LSI20320-R supports all key 32-bit and 64-bit versions of Microsoft Windows, Linux, and Solaris as well as the x86, IA64, SPARC, and AMD64 system architectures. With this broad base of OS and System Support, the LSI20320-R is the ideal choice for attaching the most powerful Hard Disk Drives and SCSI peripherals to your workstation or server.

	LSI20320-R HOST BUS ADAPTER	
Solution Provided	Unrivaled single-channel Ultra320 SCSI performance for data intensive applications	
Environment Envisioned	Ideal for maximizing storage performance within servers and high-performance workstations	
SCSI Bus	Wide Ultra320, LVD (Low Voltage Differential) and Wide Ultra SE (Single-Ended)	
SCSI Processor	LSI53C1020	
Host Bus Type	64-bit, 133MHz PCI-X (backward compatible with PCI)	
PCI Card Type	Universal Add-in Card (3.3V and 5.0V signaling)	
PCI Data Burst Transfer Rates	132MB/s (PCI 32-bit bus @ 33MHz) 264MB/s (PCI 64-bit bus @ 33MHz) 528MB/s (PCI 64-bit bus @ 66MHz)	800MB/s (PCI-X 64-bit bus @ 100MHz) 1056MB/s (PCI-X 64-bit bus @ 133MHz)
Connectors	Internal: 68-pin HD	External: 68-pin VHDCI
Termination	Universal (LVD/SE) Termination Automatic Cable Detection	
Device Support	Up to 15 Internal/External SCSI Devices	
Physical Dimensions	6.6" x 2.5" or 16.76cm x 6.35cm, MD2	
Operating Temperature	0°C to 55°C	
Operating Voltage	+5V ±5%, 3.3V ±0.3V	
System Architectures Supported	X86, IA64, SPARC, AMD64	
Compliances	CE, VCCI, Canada, C-Tick, FCC class B, UL 94VO	
OS Support	Microsoft <sup>®</sup> Windows <sup>®</sup> NT4.0, 2000 and Server 2003 Red Hat <sup>®</sup> Linux <sup>®</sup> 7.0, 7.1, 7.2, 7.3, 8.0 (32- & 64-bit), ASE 2.1 Caldera 3.1, 3.1.1 Novell <sup>®</sup> NetWare <sup>®</sup> 5.1 and 6.0 Solaris x86	SCO° OSR Unix 5.0 Solaris SPARC SuSE° Linux° 7.2, 7.3, 8.x (32- & 64-bit) Open Unix 8 SCO° UnixWare 7.x
Warranty	3 years, advanced replacement option, free advanced technical support at www.lsi.com/support	
Ordering Information		
LSI20320R-KIT-F	Individually packaged box with LSI20320-R HBA, one internal, five-drive LVD 68-pin, 42 inch cable with termination; CD with drivers, management utilities and user's guide, and optional low-profile bracket	

#### THE ULTRA320 SCSI PERFORMANCE ADVANTAGE

Ultra320 SCSI is the seventh generation of SCSI I/O technology and is the most robust and powerful I/O solution on the market today. Arm yourself with a superior OEM-tested LSI Host Bus Adapter today.



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

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LSI20320-R-B-F

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Individually packaged box with LSI20320-R HBA and CD with drivers, management utilities and user's guide

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