KEY APPLICATIONS

- High performance workstations
- Entry-level Servers
- Integrated RAID (0, 1 and 1E)

FEATURES

- Ultra320 SCSI, PCI-X 133MHz
- 320 MBps
- Fusion-MPT architecture featuring 50,000 I/Os
- Connects up to 15 internal 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 Os
- RoHS 6 Compliant

The LSI20320I-R Ultra320 SCSI host adapter offers the Ultra320 SCSI performance for entry-level servers.

DELIVERING HIGH PERFORMANCE FOR TODAY'S Workstation and SERVERS!

The LSI Logic LSI20320I-R Ultra320 SCSI single channel host adapter is the right choice for increasing storage performance within entry-level servers and high performance workstations. With 320 MBps and capability of up to 50,000 I/Os per second, this adapter is ideal for transferring high speed and high capacity data. Designed for applications that don’t require as many external connections, this cost effective solution gives you the performance you need, at a price that is right.

With PCI-X throughput of 1056 MBps, this adapter also capitalizes on maximum system performance for those systems needing it; yet is backward compatible with existing PCI systems. It utilizes Fusion-MPT architecture that allows for thinner drivers for better performance (up to 50,000 I/Os per second) while adding value and flexibility at the firmware level.

The Integrated RAID feature offers RAID 0 for higher performance and RAID 1/1E for higher reliability.

<table>
<thead>
<tr>
<th>Host Bus</th>
<th>64-bit, 133 MHz PCI-X</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCSI Bus</td>
<td>16-bit LVD or Single-Ended</td>
</tr>
<tr>
<td>SCSI Chip</td>
<td>LSI53C1020A</td>
</tr>
<tr>
<td>SCSI Performance</td>
<td>Ultra320</td>
</tr>
<tr>
<td></td>
<td>(320 MBps)</td>
</tr>
<tr>
<td>SCSI Connector Configuration</td>
<td>Internal: 68-pin HD</td>
</tr>
<tr>
<td>Maximum Number of SCSI Devices</td>
<td>15</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
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<tr>
<th>Marketing</th>
<th>Internal</th>
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<tbody>
<tr>
<td>LSI20320I-R</td>
<td>L3-00114-01</td>
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</table>
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 MBps (PCI 32-bit bus at 33 MHz)
- 264 MBps (PCI 64-bit bus at 33 MHz)
- 528 MBps (PCI 64-bit bus at 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**
+5 V ± 5% & 3.3V ± 0.3V

**PCI Form Factor**
6.6" x 2.54"  (MD2 Card)

**PCI Power**
4 Watts, 0.2 A @ +5VDC, 0.9 A @ +3.3 VDC

**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 Wide Ultra SE (Singled-Ended)

**SCSI Processor**
LSI53C1020A

**Connectors**

<table>
<thead>
<tr>
<th>Connectors</th>
<th>External</th>
<th>Internal</th>
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<tbody>
<tr>
<td></td>
<td>na</td>
<td>68-pin HD</td>
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**Termination**
Universal (LVD/SE) Termination per channel

**Termination Power**
Self resetting 1.5A fuse

**LED Indicators**
4-pin header for off-board LEDs

**BIOS Flash memory**
512K x 8 flash EEPROM

**Integrated RAID**
RAID 0, 1 and 1E

**PCI Subsystem ID**
SVID (Subsystem Vendor ID) 1000h
SSID (SubSystem ID) xxxxxh

**Environments**

<table>
<thead>
<tr>
<th>Operating</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0° to 55° C</td>
<td>-45° to +105° C</td>
</tr>
</tbody>
</table>

**Relative Humidity**
5 to 90% non-condensing

**MTBF**
> tbd

**Compliances**
CE mark, VCCI, Canada mark, C-Tick, FCC class A, UL 94VO

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**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 three-year limited warranty.

For more information please visit the LSI Logic web site at: [http://storageio.lsilogic.com](http://storageio.lsilogic.com)

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ISO 9000 Certified

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