

# LSI20860 SCSI Host Adapter

## KEY APPLICATIONS

- Attaching SCSI peripheral devices to desktop PCs including CD-ROM, tape, MO, scanners, printers, photo CD, DAT, Floptical, CD-R drives and optical juke boxes
- Desktop PCs with add-on, non-booting SCSI drives and other SCSI devices SDMS

### Bus Interface:

5V PCI

### PCI Mode:

Bus Master

### Plug-and-Play:

Yes

### SCSI Rate:

20 Mbps synchronous  
7 MBps asynchronous

### SCSI Bus:

8-bit SE

### Bootable:

No

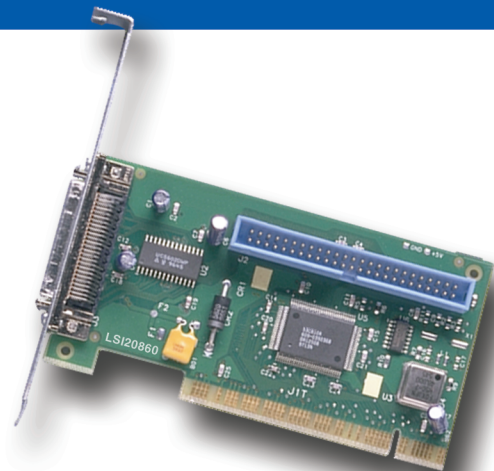
### FIFO Size:

64-bytes

### SCSI Connectors:

Internal: 50-pin LD  
External: 50-pin HD

*The LSI20860 PCI-to-Ultra SCSI host adapter facilitates high-speed data transfer without slowing the bus.*



## OVERVIEW

The LSI20860 joins PCI, the fastest standard systems bus available today, with the high performance of Ultra SCSI I/O technology. Based on the industry's first PCI-SCSI RISC processor, the LSI20860 realizes the full throughput potential of SCSI I/O with 32-bit, bus-mastering (DMA) PCI transfer rates. This robust adapter transfers data at the highest rate of each SCSI device on the bus without downgrading the bus to the slowest device. Combining low cost and high performance, the LSI20860 is an excellent solution for OEM peripheral attach and desktop applications.

Setting up the LSI20860 to connect up to seven SCSI devices (CD-ROMs, scanners, tape devices and hard drives) is fast and easy. That's because the LSI20860 eliminates the need for jumpers, switches and budgeting for system DMA, addresses and IRQ's. Coupling the LSI Logic proprietary SCSI RISC architecture with high-performance software drivers provide these SCSI devices with up to 20 MBps data transfer rates.

In critical data handling operations, the LSI20860 host adapter offers data and product reliability, software and hardware compatibility, and ease of use. Stringent testing by LSI Logic and other software/hardware vendors ensures OEM compatibility with all major operating systems and a wide variety of SCSI-1, Fast SCSI-2 and Ultra SCSI devices.

Powerful software drivers and utilities included with each host adapter make installation and configuration tasks virtually automatic. SCSI Device Management System (SDMS™) software solves the increasingly complex task of managing I/O by supporting the LSI Logic family of SCSI processors and controllers. This robust suite of drivers and utilities is developed in-house and frequently updated to reflect operating system upgrades and enhancements.



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## **BENEFITS**

- Easy to install, easy to use
- Supports as many as seven peripherals at one time, including hard drives up to 8 Gbytes
- Compatible with most major operating systems
- Accommodates a wide variety of data transfer rates without downgrading the bus to the slowest level
- Backed by a five-year limited warranty

## **SOFTWARE SPEEDS INSTALLATION**

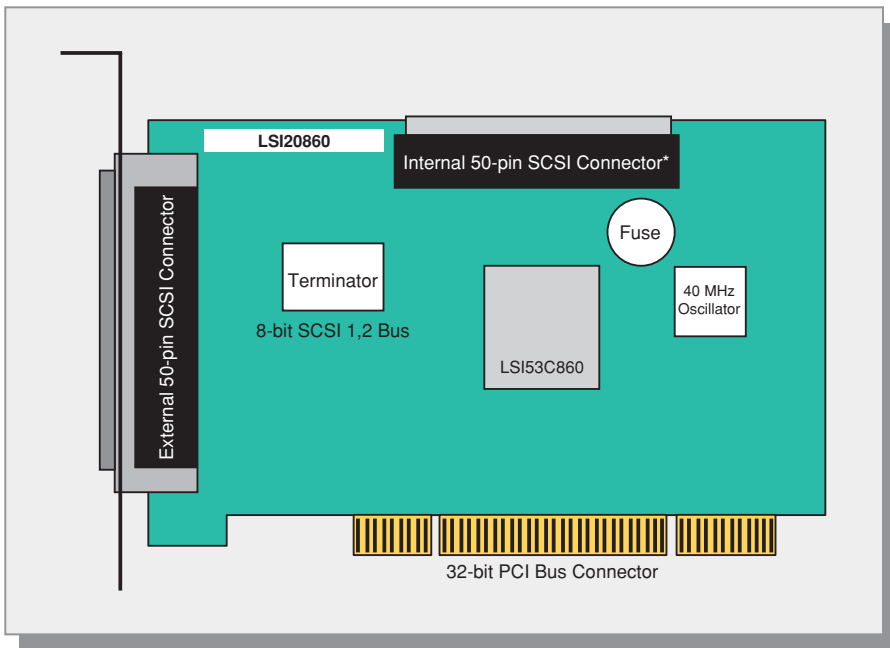
As part of its complete solution, LSI Logic includes powerful utilities and drivers with the LSI20860 host adapter. Developed in-house and certified by major operating system vendors, SDMS (SCSI Device Management System) software is based on industry standards and makes host adapter board installation and configuration tasks fast and easy. SDMS drivers, approved through the Microsoft WHQL, Novell Labs, SCO, Sun and Solaris certification processes, are compatible with all major OS platforms and are continually updated to incorporate new OS systems, features and upgrades. The SDMS software suite is supplied to customers on a compact disk or can be downloaded from [www.lsil.com](http://www.lsil.com).

## **HOST ADAPTERS OFFER OUTSTANDING PERFORMANCE**

LSI Logic host adapters are designed around semiconductors that are designed, manufactured and tested in LSI Logic facilities. Our host adapters use the highest-quality components and processes available while being assembled and tested in ISO 9001 facilities. LSI Logic offers a wide range of Lsibios I/O host adapters that support ISA or PCI host buses. Supported I/O technologies are Fast, Ultra and Ultra2 SCSI (Ultra3 to be released soon), USB, PCI-RAID, Fibre Channel, and SCSI bus expanders. Within the SCSI product portfolio are single-ended, high-voltage differential (HVD) and low-voltage differential (LVD).

## LSI20860 KIT CONTENTS

- LSI20860 PCI-Ultra SCSI host adapter
- SCSI Device Management System (SDMS) software with a full range of operating system support and SCSI configuration utilities
- LSI20860 Users Guide
- SDMS Users Guide
- Internal ribbon cable: 50-pin, 3-connector, 3 feet long



*LSI20860 host adapter diagram*

# LSI20860 SCSI Host Adapter

## Technical Specifications

PCI Bus	32-bit, 5 V local bus (versions 2.0 and 2.1)	
PCI Modes	Bus master DMA	
PCI Transfer Rate	up to 133 MBps	
SCSI Asynchronous	up to 7 MBps	
SCSI Synchronous	up to 5 MBps	
SCSI Synchronous	Fast: up to 10 MBps, Ultra: up to 20 MBps	
PCI Voltage	+5V $\pm$ 5% (1.5 A max), 12V $\pm$ 5% (50mA max)	
PCI Form Factor	2.5" x 4.75"	
Bracket	ISA/EISA	
Certification Level	PCI 2.1 compliant	
SCSI Bus	8-bit, single-ended	
SCSI Processor	LSI53C860	
Connectors	<b>External</b>	<b>Internal</b>
	50-pin, HD	50-pin, HD
Termination	Active, automatic	
Termination Power	Self-resetting	
Environments	<b>Operating</b>	<b>Storage</b>
	Temperature	5°C to 55°C
Relative Humidity	5 to 90% non-condensing	5 to 90% non-condensing
Max Dew Point Temp	32°C	
MTBP	>500,000 hours	
Compliances	CE, VCCI, FCC and CISPR class B, UL 94VO	

## Software Support

OS Support	Versions
DOS	with ASPI support
Windows	95, 98, Me, 2000, NT4.0 SP4 and above
NetWare	4.2, 5.0 and 5.1
UnixWare	2.1 & 7.x
SCO Unix	Open Server 5.x
OS/2	Warp 4.x
Solaris	2.6
Utilities	Install, Flash (DOS only), SCSI format, SCSI configuration, verify

For more information please visit the LSI Logic web site at:

<http://storageio.lsillogic.com>

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