Ultra320 TO HVD SCSI CONVERTER

- Convert Between All Versions of LVD/MSE/SE/HVD
- Extend LVD/MSE/SE/HVD Bus Length
- Isolate HVD Segments of a SCSI bus
- Targets and initiators may be located on both sides of the Expander
- The models are backward compatible with older versions of SCSI
- Does not consume a SCSI ID
- Stand-alone and Board-level Versions:

The board-level version Model MH33A is sized to fit in a standard 3.5" drive bay

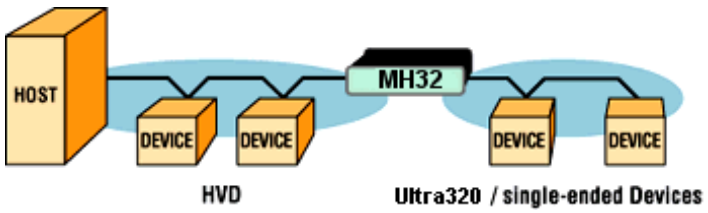
The stand-alone Model MH32A Ultra320 Converter includes a power supply for standard power line operation.

Interconnect HVD and Ultra320 Devices

Paralan's models MH32A / MH33A let you add U320 devices into an existing High Voltage Differential (HVD) system, or utilize existing HVD devices in an Ultra320 or single-ended system. All this is accomplished without any impact on SCSI protocol or loss of data thruput.

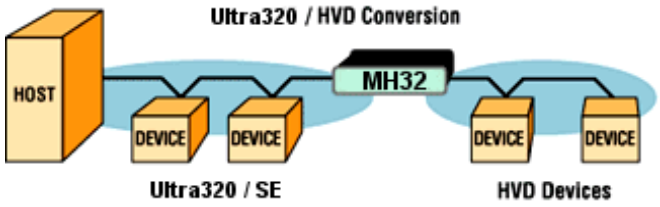
Using Ultra320 Devices in an Existing HVD System

SCSI protocol allows all SCSI implementations i.e. LVD/SE and HVD to communicate in the same SCSI domain. This is accomplished through the use of the DIFFSENSE signal. However, the performance level is reduced by the slower devices on each segment. This huge penalty is avoided by using a type of SCSI Expander usually referred to as a Converter. As an example; a SCSI converter is placed between an Ultra 320 device and an HVD device. This isolates the different versions of SCSI into two segments allowing the both the Ultra320 devices and the HVD devices to function at their full throughput.



Using HVD (High Voltage Differential) Devices in an Ultra320 System

HVD Devices can be added to an Ultra320 or Single-ended system simply by adding a Ultra320 to HVD Converter, attaching the HVD SCSI segment to the HVD port of the Converter. The converter will not consume a SCSI ID, and the system will operate with no compromise of thruput.



Mixing SCSI Device Types

Multimode LVD SCSI will automatically change to Single-Ended (SE) if an SE device is on the same bus segment. However, neither LVD nor SE SCSI can directly communicate with HVD SCSI. A Model MH32A or MH33A Ultra320 to HVD SCSI Converter enables this type of communication by converting the Ultra320 or SE SCSI to HVD or vice versa. The presence of a SCSI Converter will not decrease data thruput.

The MH32A and MH33A may be used in any application with an LVD, SE or HVD host adapter. They should be used if the host adapter is an Ultra320 LVD host adapter with Ultra320 drives connected to it. If the host adapter is SE or HVD, or if it is an LVD host adapter that is capable of no more than Ultra160 speed or if the LVD peripherals are capable of no more than Ultra160 speeds, the Model MH16A or MH17A may be used.

Paralan Model MH32A and MH33A LVD/MSE to HVD SCSI Converters are completely compatible with all devices that conform to the full ANSI X3T10 standard through SPI-4 (Ultra320). They are available either as stand-alone units utilizing line voltage, or as board-level units for installation in other equipment.

Isolation for Hot Swapping

The logical isolation between the two sides of a SCSI Converter allows a device on one side to be disconnected without disturbing the other side.

PDF version *of this data sheet.*

Specifications:

Environmental
Relative Humidity: 0 - 95% non-condensing
Operating Temperature: 0 - 50°C
Storage Temperature: –25 to +75°C

Power Requirements
Stand-alone units (MH32A):
Voltage: 100 - 260 VAC, auto select
Frequency: 50 - 60 Hz
Board-level units (MH33A):
Voltage: 5 V dc ±5%
Current: 1.5 A max

Safety Approvals
UL, CSA, TUV, CE

EMI/RFI
FCC Class A, CE

SCSI Connections
MH32A, MH33A: SCSI-3 68-pin High-Density female Alt-3 “P” Connector

Communication
Limited only by the performance level of the devices connected to the MH32A or MH33A. All devices will function to their full designed capabilities.

Warranty
Two year limited warranty

Weight:
MH32A: approx. 12 oz (0.34 kg)
Shipping weight, approx. 4 lb (1.8 kg)
MH33A: 2.5 oz (71 g)
Shipping weight, approx. 2 lb (1 kg)

Physical Size (MH32A)
Height: 1.6 in. (41 mm)
Depth: 4.5 in. (114 mm)

Board-Level Version Dimensions:

Overall board dimensions 4.00 x 3.88 in. (101.6 x 98.5 mm)
See **PDF drawing** *for details.*

Ordering Guide:

Model Numbers		SCSI Product Description
Stand-alone	Board Version	
MH32A	**MH33A**	SCSI Wide Ultra320 to HVD Converter (16-bit)
EB1		**Rack Mount Expander Box** (rack mount up to 3 SCSI Expanders
2811		5-1/4" Half Height Drive Bay Mounting Bracket & Faceplate for MH33A
SQxx		**SCSI Quiet Cable™** (specify length)

Paralan Corporation 4655 Ruffner Street, San Diego, CA 92111
Sales: (800) 479-7719 | Tel.: (858) 560-7266 | Fax: (858) 560-8929 | E-mail: **info@paralan.com**