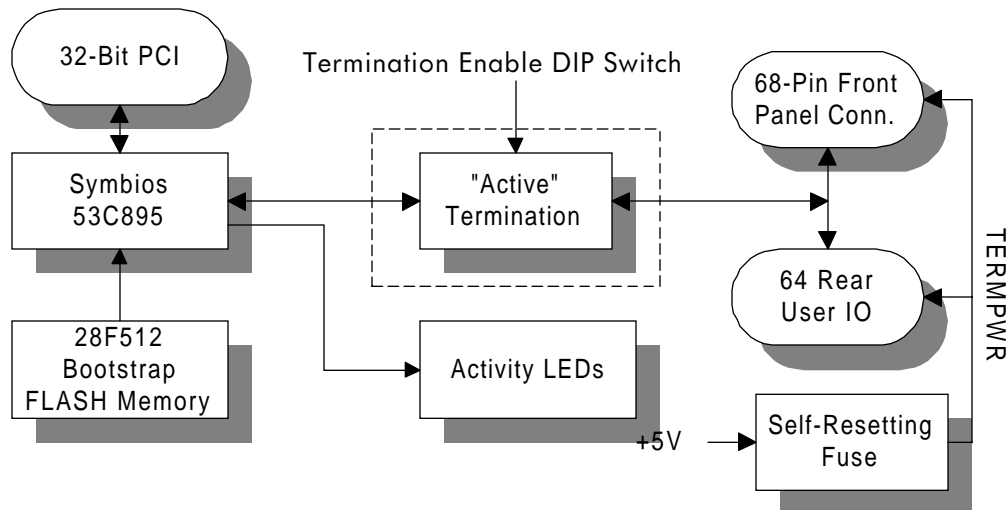


ULTRA2 Fast/Wide SCSI Adapter



The ULTRA2 SCSI PMC adapter interfaces a host board PCI bus to a standard SCSI interface via a Symbios 53C895 controller, using either single ended or Low-Voltage Differential signaling.

The SCSI bus is available out the front panel using a 68-pin connector recommended by the ANSI X3.131 specification, which governs SCSI implementation. It is also available out the rear 64 user I/Os on the PMC, which are in turn connected to the P2 connector of a VMEbus host processor supporting rear I/O connectivity.

An "active" termination network for each SCSI signal line terminates the SCSI bus. A DIP Switch on the PMC card allows the user to either enable or disable the Termination function.

The 53C895 SCSI controller from Symbios Logic (formerly NCR Microelectronics) features an intelligent processing engine which executes special programs (*Scripts*) in the host processor memory to effect SCSI sequences. This reduces processor overhead in handling the SCSI interface operation.

The 53C895 controller supports 1-byte and 2-byte wide SCSI buses (2-byte = "Wide") operating in either asynchronous or synchronous (i.e., "Fast") protocol. The FAST-20 SCSI specification, which permits 20 MB/s or 40 MB/s transfer rate on a 1-byte or 2-byte wide SCSI bus, is supported by the 53C895, enabling synchronous mode transfers at up to 40 MB/s.

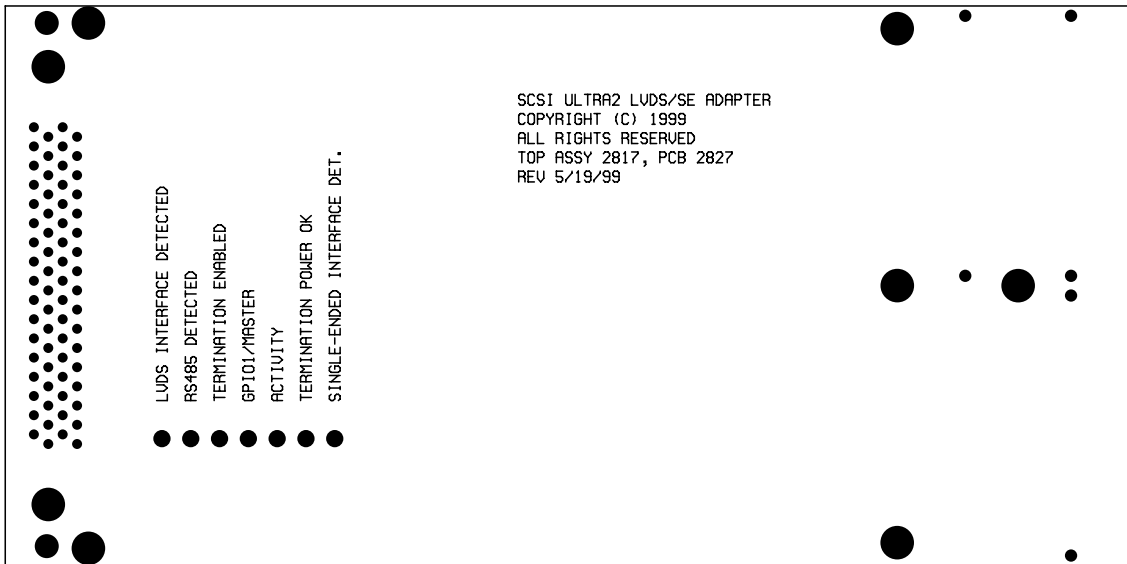
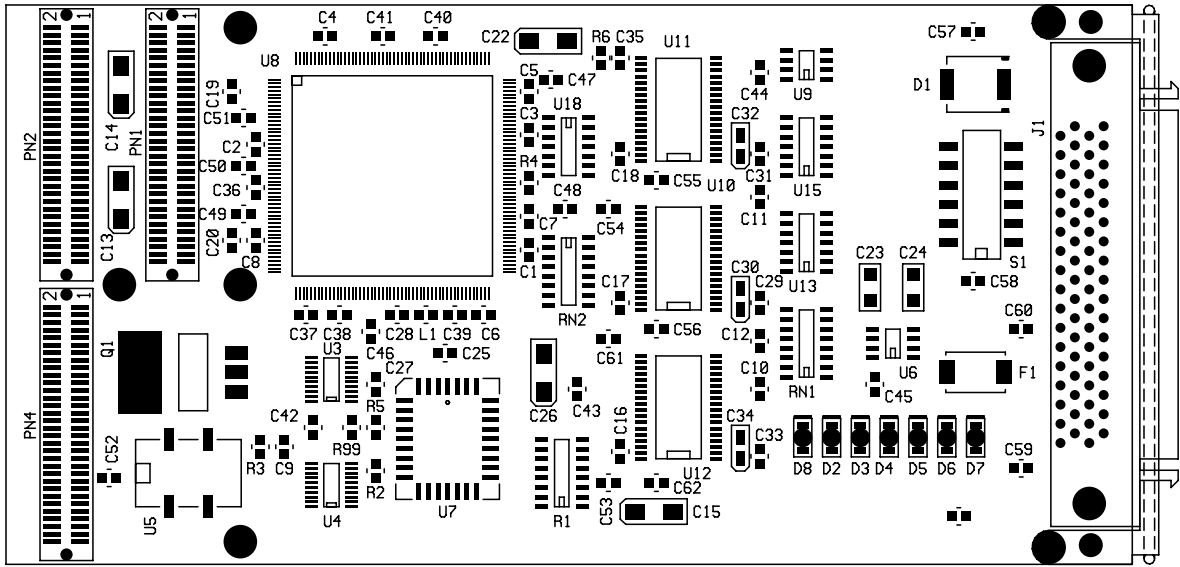
When operating in ULTRA2 mode, Low Voltage Differential (LVD) signaling is used. This results in an 80 Megabyte/Second datarate when operating in Fast/Wide mode. Selection of either Single-Ended mode (SE) or Low Voltage Differential Mode (LVD) is accomplished automatically in the hardware design.

The SCSI PMC adapter provides termination power ("TERMPWR") through a Schottky diode as is typically done in most SCSI implementations. This design features a self-resetting fuse which automatically shuts off when excessive TERMPWR current is supplied to the SCSI bus. This self-resetting fuse will automatically re-power the SCSI interface following removal of the offending short circuit.

Several LEDs visible from the side of the PMC monitor SCSI bus activity.

This design also supports the Bootstrap FLASH memory option, where users can store boot-up code on the PMC. Most applications, however, will use driver code installed and running in the host processor, so the Bootstrap FLASH memory is unused.

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Product Summary

Technobox Part Number:	2817
Typical Power Dissipation:	TBD watts
Power Supplies Required:	+5
PCI Signaling Environment:	5 or 3.3V Volt