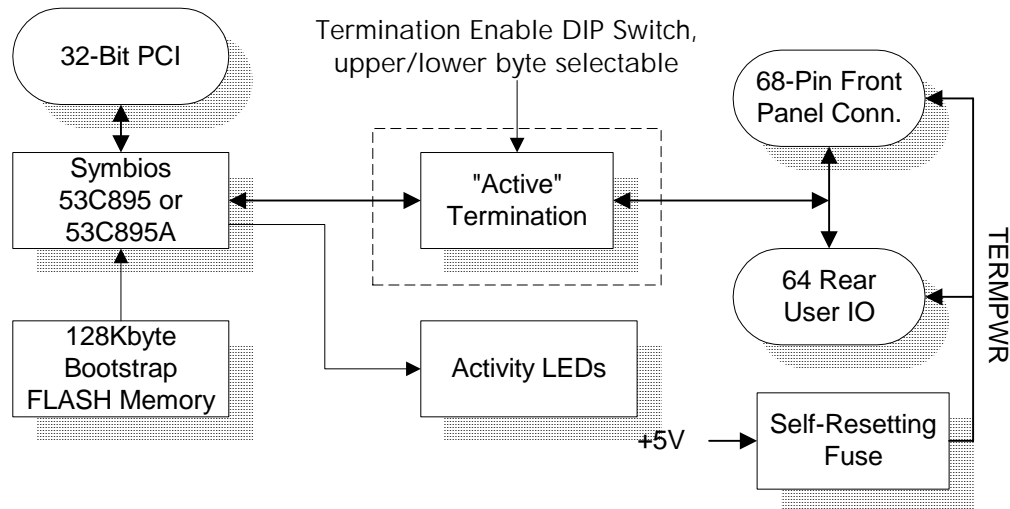# ULTRA2 LVD/SE Fast/Wide SCSI Adapter

The ULTRA2 SCSI PMC adapter interfaces a host board PCI bus to a standard SCSI interface via either a Symbios 53C895 or 53C895A controller for operation with 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. This design supports independent selectable termination for the upper and lower SCSI bus bytes.

The 53C895 SCSI controller from Symbios Logic (now LSI logic) 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. In Single Ended mode (SE), Fast/Wide operation provides 40 MB/s throughput. In Low Voltage Differential (LVD), 80 MB/s throughput can be achieved.

When operating in ULTRA2 mode, LVD signaling is used. Selection of either SE or LVD mode is accomplished automatically in the hardware design.
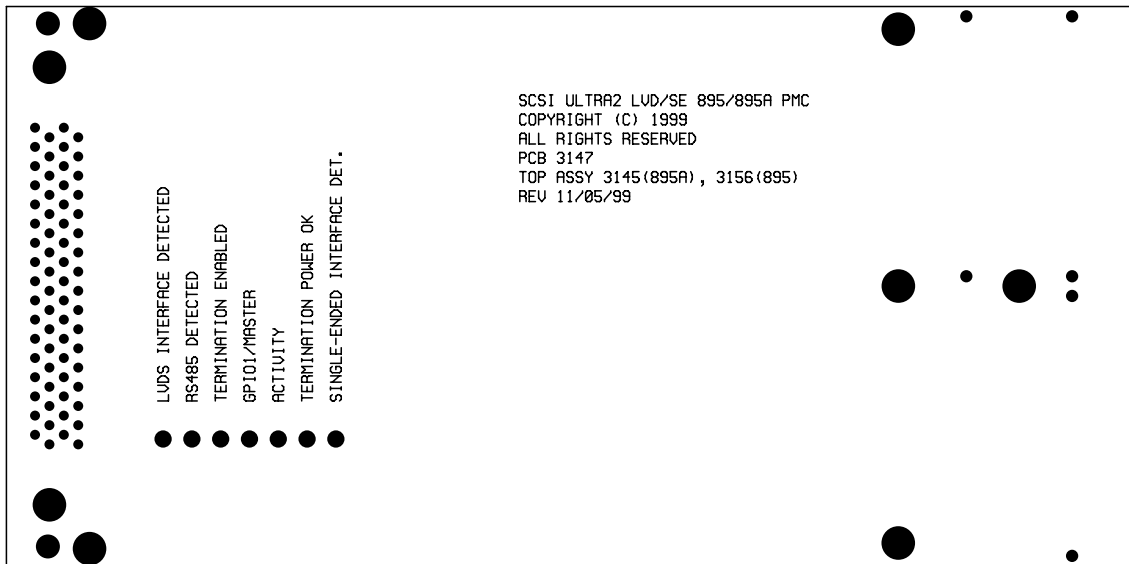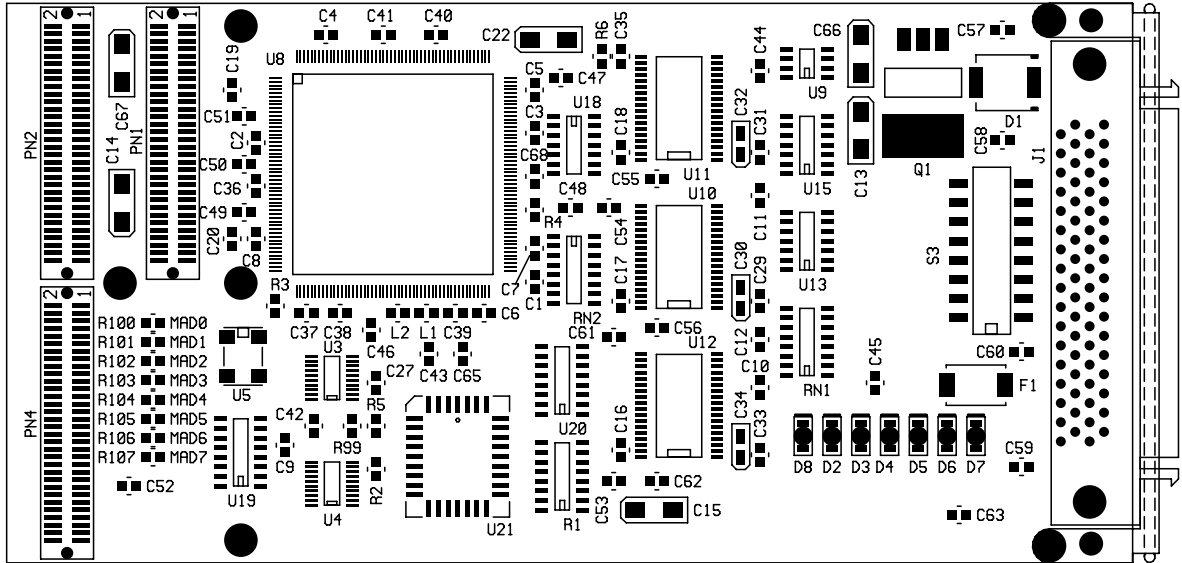
The SCSI PMC adapter provides termination power ("TERMPWR") through a Schottky diode as is typically done in most SCSI implementations. This design features a self-resetting fuse that automatically shuts off when excessive TERMPWR current is supplied to the SCSI bus. This self-resetting fuse will automatically 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.

The product is offered in two models. Part Number 3145 employs the 53C895A chipset, while P/N 3156 uses the 53C895 chipset.

This design also supports the Bootstrap FLASH memory option (128K bytes), where users can store boot-up code on the PMC. The BIOS code is shipped installed for Intel platforms.

SCSI ULTRA2 LVD/SE 895/895A PMC
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PCB 3147
TOP ASSY 3145(895A), 3156(895)
REV 11/05/99

LVDS INTERFACE DETECTED
RS485 DETECTED
TERMINATION ENABLED
GPIO1/MASTER
ACTIVITY
TERMINATION POWER OK
SINGLE-ENDED INTERFACE DET.

Product Summary

Technobox Part Number:	3145 (53C895A chip); 3156 (53C895 chip)
Typical Power Dissipation:	TBD watts
Power Supplies Required:	+5
PCI Signaling Environment:	5 or 3.3V Volt

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