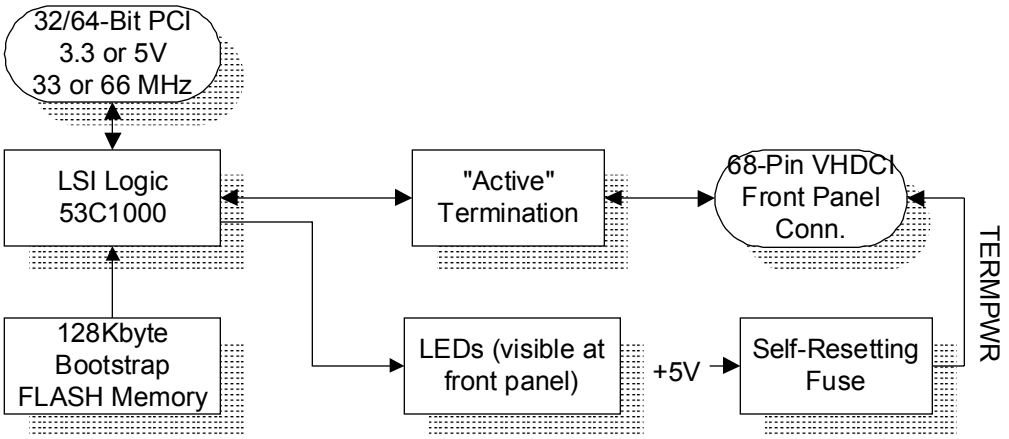
ULTRA 160 SE/LVD SCSI Controller PMC



The ULTRA160 SCSI PMC adapter interfaces a host board PCI bus to a standard SCSI interface via an LSI Logic 53C1000 controller for operation with single ended or Low-Voltage Differential signaling.

The SCSI bus is available out the front panel using a VHDCI 68-pin connector recommended by the ANSI X3.131 specification which governs SCSI implementation. Rear I/O connectivity is not provided on the PMC. For LVD rear I/O connectivity, please see P/N 3145.

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. Since the controller is usually located at the end of a SCSI bus, the termination will be set to ON by default.

The 53C1000 SCSI controller from LSI Logic (Formerly from Symbios Logic) features an intelligent processing engine that executes special programs (*Scripts*) in the host processor memory to effect SCSI sequences. This reduces processor overhead in handling the SCSI interface operation.

The 53C1000 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) mode, 160 MB/s throughput can be theoretically achieved. Actual effective throughput will depend on the user’s software environment.

When operating in ULTRA160 mode, LVD signaling is used. Selection of either SE or LVD mode is accomplished automatically in the hardware design using the “Diff Sense” signal on the SCSI bus.

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 front panel of the PMC monitor SCSI bus activity and SCCI modes. LVD/HVD/SE mode LEDs, TERMPWR LEDs, and activity LEDs are included.

The PCI bus interface will support either 32-bit or 64-bit bus width, 3.3V or 5V signaling, and 33 or 66 MHz clock operation. All of this is automatically handled in hardware.

This design also includes 128 Kbyte Bootstrap FLASH memory in which users can store boot-up code on the PMC. The default BIOS code for Intel platforms is shipped installed.

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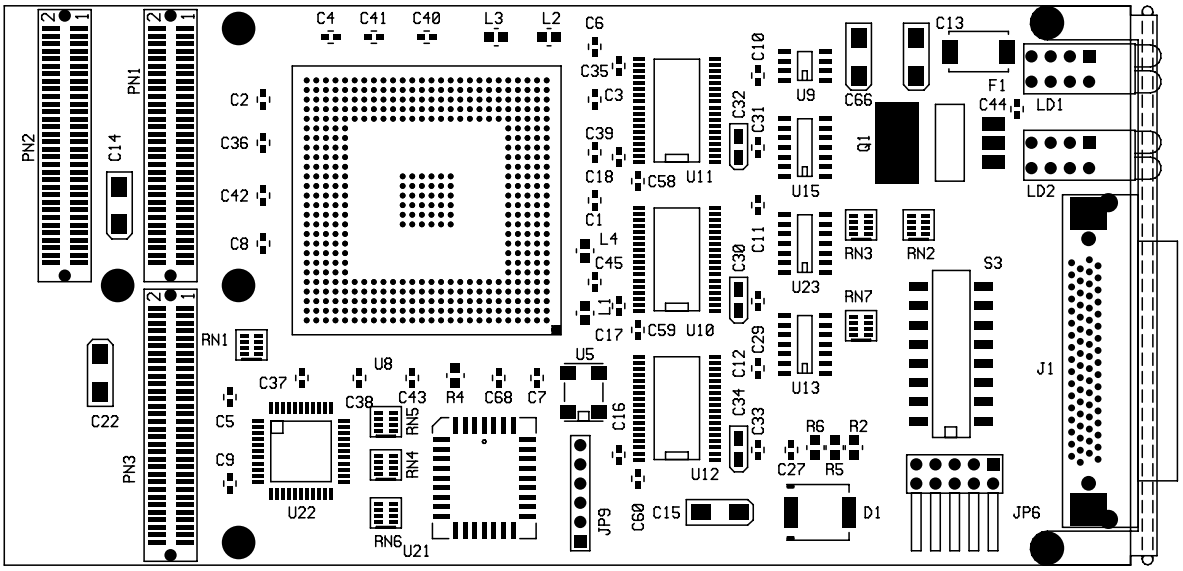

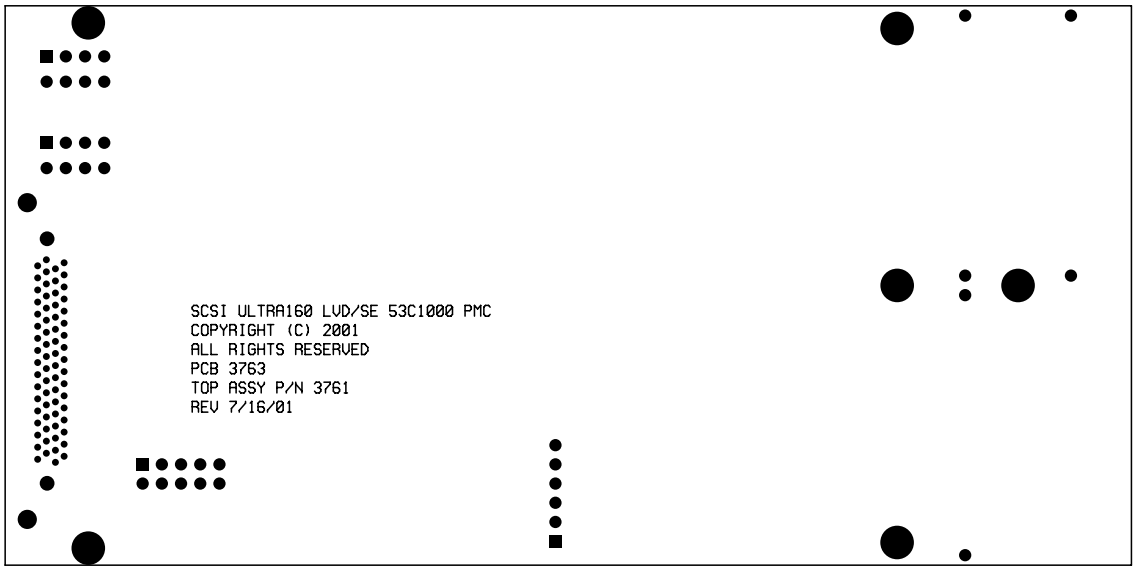

Product Summary

Technobox Part Number:	3761 (53C1000 chip)
Typical Power Dissipation:	TBD watts
Power Supplies Required:	+5
PCI Signaling Environment:	5 or 3.3V Volt