

PMC Ultra320 SCSI Adaptor



APPLICATIONS

The SC PMC/320 is a high performance intelligent Ultra320 SCSI adapter suitable for any PMC Host Board including VME Bus, Compact PCI® and Multibus II. The board offers dual channel capability based on the LSI Logic® 53C1030 SCSI controller. To alleviate the processing load of the host CPU the controller manages the Ultra320 SCSI protocol - including previous SCSI protocols for backward compatibility. The controller

also provides data striping and boot volume mirroring RAID functionality. A 68-way High Density SCSI connector on the front panel provides one SCSI channel and an additional interface via the rear I/O P4 PMC connector provides the second channel.

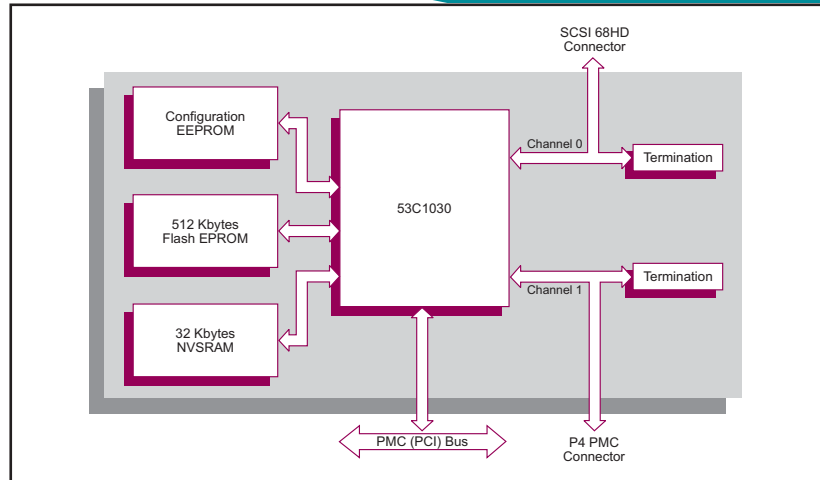
To simplify the board's integration many popular industry standard operating systems are supported.

HIGHLIGHTS

- Dual channel SCSI interfaces:
 - Data rates up to 320 Mbytes/s throughput on each channel
 - Backwards compatible for all SE and LVD SCSI Transfer Modes
 - Narrow (8-bit) or wide (16-bit)
- 512 Kbytes Flash EPROM for BIOS
- 32 Kbytes NVSRAM for RAID write journal
- PMC (PCI Mezzanine Card) format:
 - Single size CMC (Common Mezzanine Card)
 - 33/66 MHz, 32/64-bit PCI interface
 - 5V or 3.3V signaling
- Extended temperature version available:
 - -25°C to +70°C (E-Series)
- Software support for Windows NT®, Windows® 2000, Windows® XP, Windows® XP Embedded, Linux®, Solaris™, UnixWare® and VxWorks®

SCSI Interface

- dual channel SCSI interfaces:-
 - data rates up to 320 Mbytes/s throughput on each channel
 - backwards compatible for all SE and LVD SCSI Transfer Modes
 - narrow (8-bit) or wide (16-bit)
- utilizes LSI Logic® 53C1030 dual channel controller
- SCSI I/O connection via:-
 - front panel 68-way HD connector
 - rear I/O P4 PMC connector
- narrow (8-bit) or wide (16-bit) single ended or LVD interfaces with auto-sense capability
- asynchronous and synchronous operation
- active termination and signal negation
- CRC (Cyclic Redundancy Check)
- AIP (Asynchronous Information Protection)
- SureLINK® Domain Validation
- Ultra320 SCSI I/O processor provides:-
 - double transition clocking for 320 Mbytes/s throughput on each channel
 - 33/66 MHz, 32/64-bit PCI interface
 - theoretical 528 Mbytes/s zero wait state transfer rate with 66 MHz/64-bit PCI interface
- PC BIOS firmware supports optional RAID configurations with two different firmware sets:-
 - data striping (RAID 0)
 - boot volume mirroring (RAID 1 and RAID 1E)
 - RAID can be disabled
- 32Kbytes NVSRAM for RAID write journal
- supports disk, tape and other peripherals



PMC Interface

- complies with PCI Protocol and Electrical Specifications
- supports 66MHz PCI clock rates:-
 - 5V or 3.3V signaling interface
- 32/64-bit interface
- bus master capability
- base address and software configurable

BIOS EPROM

- 512 Kbytes, 8-bits wide Flash (29LV040)
- 32-pin JEDEC socket
- standard LSI Logic BIOS Firmware

Software Support

- support for Windows NT®, Windows® 2000, Windows® XP, Windows® XP Embedded, Linux®, Solaris™, UnixWare® and VxWorks®

Electrical Specification

- +5V@1.0A; ± 5%
- +3.3V@0.6A; +5% / -3%
- current values are typical and exclude SCSI bus requirements
- +12V and -12V not utilized

Environmental Specification

- operating temperatures:-
 - 0°C to +55°C (N-Series)
 - -25°C to +70°C (E-Series)
- 10% to 90% relative humidity (operating and storage)
- -40°C to +85°C (storage)

Mechanical Specification

- single size CMC (Common Mezzanine Card) 74mm
- 10mm height stack module
- accommodates host board stiffener bar

ORDERING INFORMATION

Order Number Product Description (Hardware)

- | | |
|---------------|---|
| SC PMC/320-00 | Dual Channel Ultra320 SCSI Adaptor for PMC with IO via front panel and rear connector. Includes RAID 0 BIOS |
| SC PMC/320-10 | Dual Channel Ultra320 SCSI Adaptor for PMC with IO via front panel and rear connector. Includes RAID 1 and RAID 1E BIOS |