IDE Controller with Front and Rear I/O



The IDE Controller PMC, when mated to a host or carrier card, provides an interface between the PCI bus and as many as four IDE/ATA devices, via two independent channels.

Built around a CMD PCI-648 IDE controller chipset, the product supports the Ultra 66 data-transfer protocol over primary and secondary IDE channels. It also supports slower bus-master data transfer rates to accommodate hard disk drives (HDDs) that do not support Ultra 66.

The selected PCI bus is a 32-bit bus at 33 MHz. A built in phase-lock loop generates an internal 66 MHz clock from the 33 MHz PCI bus clock. This internal 66 MHz clock is used to transfer data at the rate of 66 Mb/sec on to the IDE interface.

The primary IDE interface appears at the front panel. Two connection options are available. Depending on customer requirements, the IDE Controller PMC is manufactured with either a 40-pin, 0.100" pitch connector, for the standard IDE interface, or a 44-pin, 2 mm pitch connector for the Small Form Factor (SFF) connector specification.

The secondary IDE interface appears at the rear I/O connector (PN4) on the PMC and can be connected to the VMEbus P2 connector of a host or carrier card supporting rear I/O connectivity.

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The IDE controller PMC also supports two sites for mounting CompactFlash cards, one per channel. Both sites are configured to operate in true IDE mode. Additionally, each site can be set to operate in either master or slave mode.

To assure connection integrity, the CompactFlash cards can be secured to the IDE Controller PMC using a combination of locking mechanisms to prevent lateral movement and/or incidental card extraction due to shock or vibration.

On-board BIOS, provided by CMD and resident in flash memory, supports boot up configuration. This feature is supported only on Intel platforms.

Two LEDs are provided to monitor disk activity on the two IDE channels. The IDE Controller PMC supports four interrupts. Interrupt configuration is managed by DIP switch settings. Default setting is Interrupt A.

The CMD PCI-648 is fully operational and compatible with default IDE drivers from Microsoft. Drivers are available from CMD for Windows 95/98/NT 4.0 and 2000 (pending Microsoft release).

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Product Summary

Technobox Part Number:	IDE Controller PMC with 40-pin Front Panel Connector: 3016 IDE Controller PMC with 44-pin Front Panel Connector: 3240
Typical Power Dissipation:	TBD watts
Power Supplies Required:	+5 Volt
PCI Signaling Environment:	5 Volt or 3.3 Volt