

- LOWER INTEGRATION COSTS
- COMPLETE TRANSPARENCY TO USERS
- USE ECONOMICAL IDE DEVICES
- CREATE LARGE DISK ARRAYS
- PROVIDE FAULT TOLERANCE
- REQUIRE ONLY 1 SCSI ID

## Create High Performance SCSI Storage Systems Using Economical IDE Devices

### FEATURES

**Supports 7 or 8 IDE Hard Drives, CDs or DVDs**

**Ultra SCSI speeds up to 20 MB/second**

**Host transparent support for virtually all IDE and ATAPI-4 drives and SCSI host adapters**

**Converts IDE devices to SCSI LUN addresses for greater expansion**

**Supports SureSwap™ hot-swapping technology for all online drives**

**Supports multiple block sizes**

**SCSI disconnect/reconnect and Synchronous SCSI support**

**Firmware flash-upgradeable ROM**

**LED and alphanumeric display support**

**Selectable active termination (optional)**

**Optional RS-232 compatible serial port for advanced functionality (optional)**

**Compatible with standard network servers and thin servers**

### Lower Component Costs For OEMs And System Integrators

SCSI drives are expensive! It's that simple. The IDEplex allows integration of far less expensive, and more readily available IDE drives. Why pay for an expensive SCSI controller embedded into each drive when you can use IDEplex for the entire enclosure?

### Create Huge Disk Arrays

Huge, Terabyte SCSI storage systems, or JBODs, can be created using low-cost IDE hard drives with IDEplex. These systems will compete head-to-head with their SCSI counterparts for a mere fraction of the cost.

### Completely Transparent, No Integration Issues

The IDEplex operates transparently to the system and device bus. The host system never knows there are IDE drives connected. All SCSI commands are transparently converted and transmitted as IDE commands. The embedded Intel i960™ high-speed RISC processor performs all this translation without sacrificing performance.

### Get To Market Faster

Whether it's the latest hard drive density, the "X" speed for CD drives, or new designs such as DVD, IDE interface drives often become available before their SCSI counterparts. The IDEplex eliminates this delay and lets you beat the competition to market, often by months.

### LUN Expansion With No Additional Costs

The IDEplex is a full featured SCSI LUN expander allowing 7 or 8 devices to occupy only one SCSI address, potentially saving SCSI host adapter costs. Your storage system can now have the features previously seen only in much more expensive systems.

### Fault-Tolerant Design Increases Reliability

In the event of a drive developing a fault, the system will not be affected beyond the drive's IDE bus. The drive can then be serviced using the SureSwap™ hot-swap feature with no downtime required. Additionally, IDEplex 2 is compatible with software RAID solutions that support LUN addressing, including redundancy features in Microsoft NT, NetWare, and many UNIX operating systems.

# IDEplex 2™

FINALLY, YOU CAN BUILD IDE TOWERS!

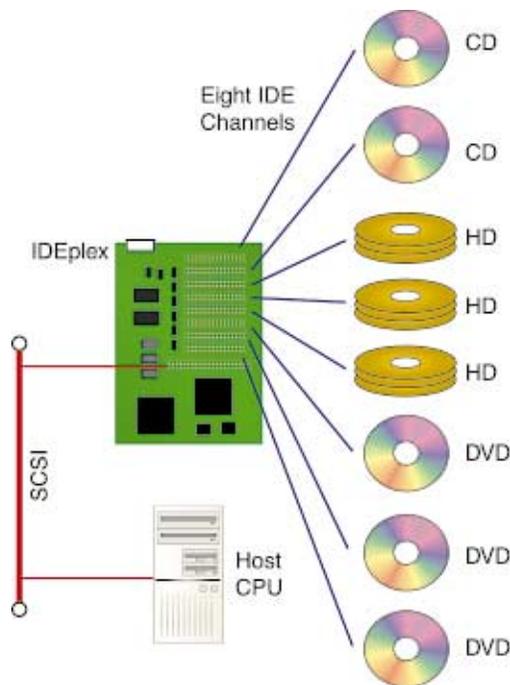
## IDE TO SCSI CONVERTER WITH SCSI LUN EXPANSION

### HOW IT WORKS

The onboard dedicated processor coordinates and converts SCSI commands to their IDE equivalents. The IDEplex connects to the host computer's SCSI bus and acts as a single SCSI device. The IDE devices are attached as "Master" devices to 1 of up to 8 independent IDE connectors on the IDEplex. As every drive is a "Master", there is no sharing of resources on a device bus.

The IDEplex's engine transparently translates SCSI activity so that the IDE drives are accessible as SCSI-based logical units, or LUNs. Since LUNs are a standard part of the SCSI specification, the IDEplex achieves maximum compatibility with the vast majority of operating systems and host adapters.

When requests come from the host computer for one of the drives, the IDEplex determines which "device side" IDE bus to route the data through. The data is read from the IDE drive and sent through the board, appearing as a standard SCSI transfer. The host operates and performs as if the attached drives were standard SCSI devices.



### SCSI INTERFACE

#### SCSI Interface

Ultra/Fast SCSI bus

Supports SCSI disconnect/reconnect

Supports Synchronous SCSI transfers

Optional selectable active termination

Hardware independent support of virtually all SCSI-2 host adapters

Supports multiple block sizes

Optional Wide SCSI connector for ease of integration into wide-only systems

#### LUN Conversion

Supports either 7- or 8-drive LUN conversion

An option to replace the drive manufacturer's inquiry name with that of the integrator's

### IDE INTERFACE

#### IDE Interface

Supports virtually all ATA hard drives, including: DMA-66 drives and ATAPI-4 single CD-ROM and DVD-ROM devices

Utilizes read/write queuing and DMA transfers

Recreates SCSI disconnect for enhanced speed on IDE drives

#### Storage Capacity

Supports 8 IDE devices of any type

### FEATURES

Firmware flash-upgradeable ROM

Supports safe-swapping of active drives

Optional RS-232 compatible serial port

LED and alphanumeric display support

Compatible with NT, Novell, and other software RAID solutions

#### System Performance

Ultra SCSI 20 MB/second

#### Hardware

CPU: 32-bit i960 RISC processor

#### Dimensions

Brackets fit into standard 5.25" enclosure

The bare board can be mounted separately inside the tower chassis

### A CUSTOMIZABLE SYSTEM

IDEplex is unique among OEM equipment. It is the platform for an integrated system of components that can be customized to *your* needs. Customize your hardware design with an optional alphanumeric display and control keypad for setting SCSI IDs, termination and other features. You can even connect multiple IDEplex processors together and control them from a single keypad. Add SureSwap™ to allow end users to replace drive mechanisms with no downtime. From connections for LEDs, to switchable active termination, to custom firmware and hardware, IDEplex can be customized to meet even the most diverse requirements.

A companion backplane kit is also available to facilitate hardware implementation of the SureSwap feature. Additionally, IDEplex is fully compatible with Alcita's leading-edge NetBase high-performance NAS thin server.

**ALCITA**  
TECHNOLOGIES

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