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Find the *Ribbon / Performance Technologies / Ziatech ZT-8952* at our website: *Click HERE*

ZT 8952/8953

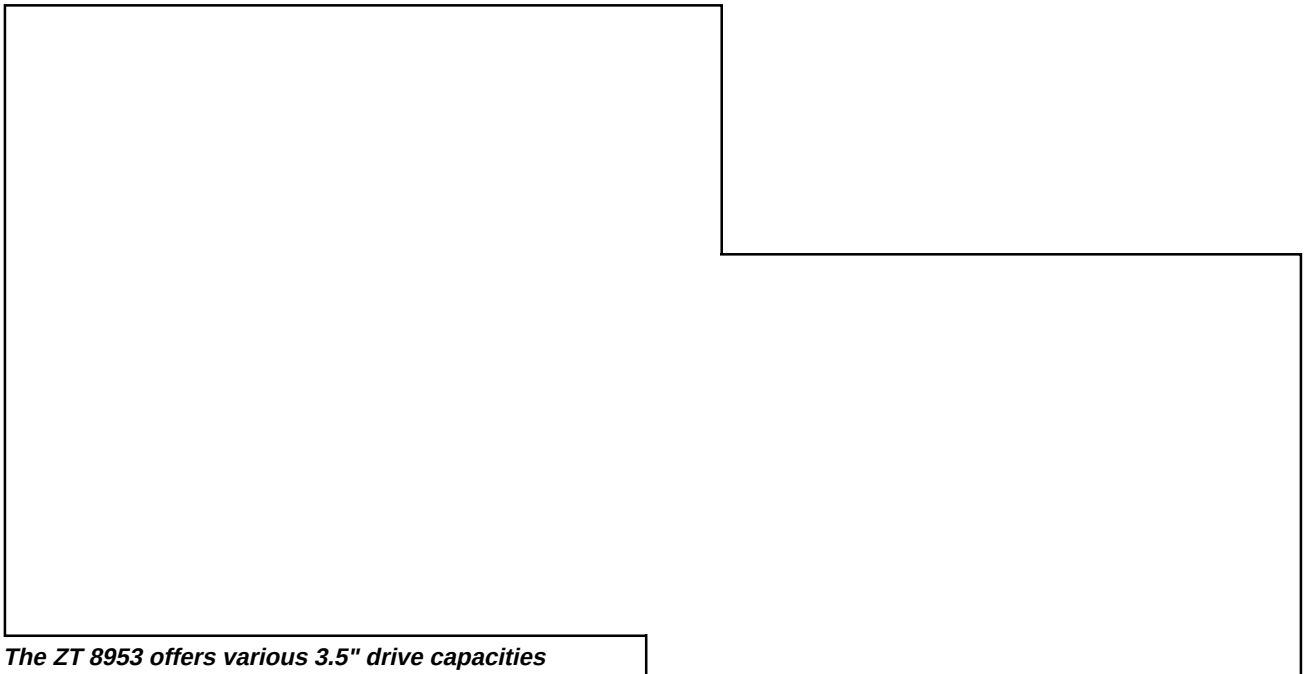
Integrated Drive Electronics (IDE) Subsystems

Multi-unit IDE disk drive controller supports 8- and 16-bit STD 32®/STD Bus systems.

The ZT 8952 and ZT 8953 provide Integrated Drive Electronics (IDE) disk drive support to STD 32® and STD Bus industrial computers.

The ZT 8952 and ZT 8953 are fully integrated, IDE controller and disk drive units intended for STD 32 and STD Bus systems that lack built-in IDE support. The ZT 8952 features an integrated 2.5-inch disk drive, while the ZT 8953 features an integrated 3.5-inch hard disk drive. Various drive capacities are supported on both the ZT 8952 and ZT 8953.

The IDE concept is used in many laptop computers because of its low cost and modularity. The demands of the laptop environment require IDE drives to have high resistance to shock and vibration. The reliability of this IDE technology also benefits STD 32 and STD computers that operate in harsh environments.



The ZT 8953 offers various 3.5" drive capacities

The slim ZT 8952 occupies only one slot

- STD 32- and STD-compatible
- Supports 3.5" and 2.5" IDE drives
- On-board 8- and 16-bit byte lane control/FIFO capability
- Requires only 5 volts power for 2.5" drives
- Controls up to two IDE drives
- Optional IDE drive mounted on controller
- Fully supported by the Ziatech BIOS and the multiprocessing STAR BIOS
- Interrupt capability
- Single slot capability (ZT 8952)

ZIATECH CORPORATION

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Functional Considerations

Integrated Drive Electronics (IDE) Controller

The ZT 8952 and the ZT 8953 both interface the IDE electronics to the STD Bus, supporting CPUs that do not directly support the IDE protocol. This CPU-independent approach allows modular sharing of data between systems for data acquisition as well as embedded applications.

Data Transfer

Although the IDE interface is a 16-bit interface, the ZT 8952/8953 operate with 8- and 16-bit CPU systems via the STD 32 and STD Buses. For 8-bit CPU systems, data is packed and unpacked dynamically by the bus interface logic. In 16-bit systems, the bus interface logic performs full 16-bit transfers. All disk transfers are performed with programmed I/O cycles. The IDE interface is not a Direct Memory Access (DMA) system, and therefore, the host processor need not support DMA.

Interrupt Capability

When functioning under the Ziatech BIOS, the IDE subsystem requires interrupt support from the host processor. The ZT 8952/8953 can be configured to drive any of the four STD 32 interrupt signals, as well as one of five frontplane interrupts.

Multiple Drive Support

The ZT 8952/8953 can control up to two drives, but are not sold in this configuration. Generally, systems requiring more than one drive have those drives mounted remotely, not within the STD chassis. The Ziatech industrial BIOS fully supports this two-drive capability. An additional cable is required to connect to the two-drive configuration. Cable lengths are restricted to 18 inches (45.7cm), and are not provided by Ziatech.

Specifications

Electrical

- STD 32 and STD-80 compatible
- IDE interface-compatible
- 8- and 16-bit support via the STD 32 Bus

Mechanical

- Size- and backplane-compatible with STD 32 and STD-80 specifications
- Slot requirements (at 0.625" [15.9mm] per slot)
  ZT 8952: 1 slot
  ZT 8953: 3 slots
- Vibration: 5 to 500Hz sine wave (p-p), 0.5G
- Shock: 1/2 sine wave of 11ms duration, 20G

Vibration and shock specifications will vary with drive used.

Connectors

- One 40-pin 0.1" (2.5mm) IDE interface
- One 44-pin 2mm IDE interface position for 2.5" integration (ZT 8952 only)

Environmental	
Operating Temperature	5° to 55° Celsius
Storage Temperature	-40° to +60° Celsius
Non-Condensing Relative Humidity	8% to 80% at 40° Celsius
Operating Altitude	10,000 feet (3047.9m) or less

Parameters change with different drives installed. These environmental specifications refer to the ZT 8952 2.5" disk drive.

STD 32 Compliance

- I/O Slave: SA16, SA8 - I, IXL, IXP

Note: SA8 is equivalent to STD-80 Series Rev. 2.3 (5 and 8 MHz).

Reliability

- MTBF: 86 years (excluding drive)
- MTTR: five minutes (based on board replacement)

Ordering Information

ZT 8952	Integrated 2.5" IDE Subsystem
ZT M8952	Integrated 2.5" IDE Subsystem manual
ZT 8953	Integrated 3.5" IDE Subsystem
ZT M8953	Integrated 3.5" IDE Subsystem manual

Note: Drive capacities change frequently. Contact Ziatech for current capacities.

Must choose one drive option for the ZT 8952

Drive Options:

D0	IDE Controller with mounting hardware for 2.5" drive (no drive installed)
D1	350 Mbyte 2.5" drive integrated with board (occupies one slot total)
D2	815 Mbyte 2.5" drive integrated with board (occupies one slot total)

Must choose one drive option for the ZT 8953

Drive Options:

D0	IDE Controller with mounting hardware for 3.5" drive (No drive installed)
D2	850 Mbyte drive integrated with board (occupies three slots total)
D3	1.2 Gbyte drive integrated with board (occupies three slots total)

All products are shipped FOB San Luis Obispo, CA, USA. OEM discounts are available for quantity purchases. Contact Ziatech for additional information.

Warranty – Five years with an optional five-year extension. See the full warranty statement in the *Technical Data Book* appendix. Batteries are not covered by Ziatech's warranty.

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