

Networking Control PMC

Dual/Quad 82551ER 10/100-TX Ethernet Adapter

The Dual/Quad 10/100-TX Mb/s Ethernet Adapter provides up to four Ethernet connections over twisted pair media. Options are available for Front-Panel RJ45 accessibility, or Rear I/O accessibility via a VITA 36 PIM module.

The card is built around Intel 82551ER Ethernet controllers that provide an integrated media access controller (MAC) and physical layer (PHY) for operating at either 10 Mb/s or 100 Mb/s. The 82551ER provides full-duplex operation at both speeds.

For front panel I/O the module presents four RJ-45 connectors, one for each port, eliminating the need for cumbersome cable adapters. Transformer based electrical isolation is provided between the 82551ER and the I/O connectors.

For the front-panel accessible products, one Green/Yellow status LED is available for each port and is visible on the front panel. The LED will illuminate GREEN for 100 Mb/s operation, and YELLOW for 10 Mb/s

operation, and will illuminate upon sensing a valid link condition.

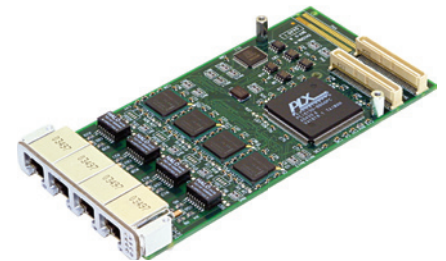
During operation, the LEDs will flicker OFF to indicate packet activity on the corresponding Ethernet port.

The connection to the 32-bit, 66 MHz PCI bus is through an PLX 6150B bridge. When host software properly configures the bridge, each 82551ER controller appears as if it were an independent controller on the primary side of the bridge.

Interrupt requests A, B, C, and D are posted on the PCI bus, using the standard PCI-to-PCI bridging conventions for routing interrupts from devices on the secondary side of a bridge.

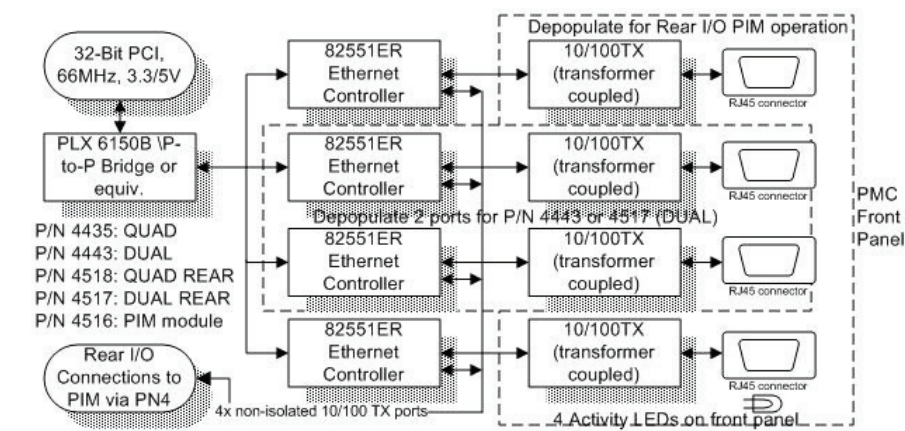
Each port is programmed with a unique 48-bit MAC address that is stored in EEPROMs on the board.

The Intel 82551ER is supported by many operating systems with built-in Ethernet support.

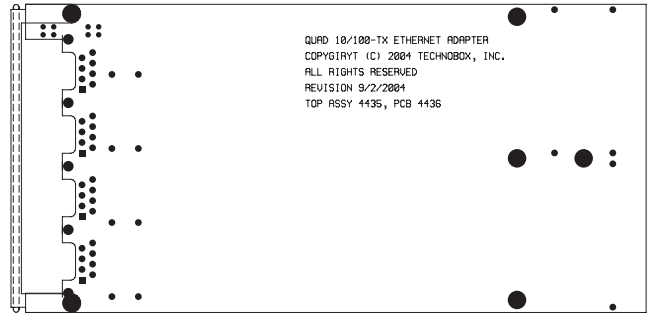
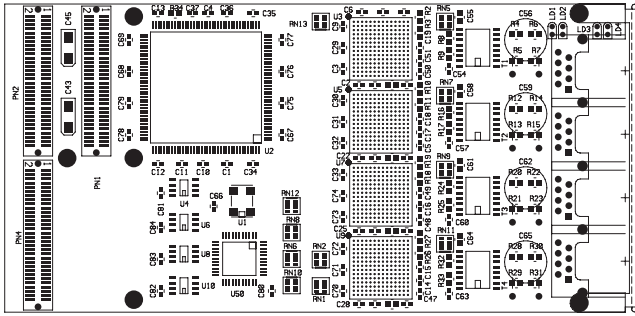


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- Provides Four 10/100 Ethernet Ports
- RJ-45 Front Panel I/O
- Design Features 82551ER Ethernet Controllers
- Full-duplex Operation at Both 10 Mb/s and 100 Mb/s
- PCI Bus Interface using PLX 6150B Bridge
- PCI (32 bits 33/66 MHz)
- LEDs Indicate Link Speed, Condition, and Activity
- RoHS-compliant, Lead-free



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QUAD 10/100-TX ETHERNET ADAPTER
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REVISION 9/2/2004
TOP ASSY 4435, PCB 4436

Specifications

Temperature (Operating): 0° to 55°C

Temperature (Storage): -40° to +85° C

Altitude: Not specified or characterized (Typical similar equipment is at 15,000 ft.)

Humidity (Operating/Storage): 5% to 90% non-condensing

Vibration: Not specified or Characterized

MTBF: Available upon request

Typical Power Dissipation: TBD

Power Supplies Required: +3.3V

PCI Environment: 5 or 3.3 Volt, 32-bit, 66 MHz

Ordering Information

4925: Dual/Quad 10/100-TX Ethernet Adapter

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DS4925-A61103

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