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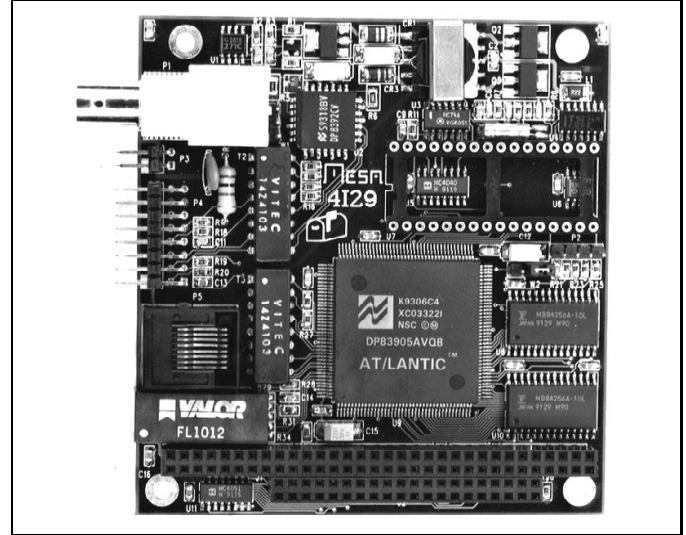
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## FEATURES:

- 16 bit Ethernet interface
- 10Base2 + AUI + 10BaseT
- I/O mapped (NE2000) mode
- Memory mapped (WD8013) mode
- EEPROM setup storage
- Only 2 option jumpers!
- External BNC transceiver option
- Low power - all CMOS
- 2 year warranty
- Made in USA - local support



The 4I29 is a 16 bit Ethernet interface implemented on a stackable PC/104 bus card.

The 4I29 supports 10BaseT (Twisted pair) and 10Base2 (Thin-BNC) Ethernet, plus has an AUI connector for connection to external transceivers.

The 4I29 can also be supplied with a low cost external panel mount BNC transceiver for applications where access to the 4I29 card is restricted.

The 4I29 can be compatible with the NE2000 or WD8013EBT depending on EEPROM setup options.

Most 4I29 options are selectable via a provided configuration utility, there are only two option jumpers (8/16 bit bus select and 10Base2 termination). Setup options are stored in an on card EEPROM, so that the configuration utility need only be run when changing hardware settings.

Programmable options include emulation mode (NE2000 or WD8013EBT), I/O address, boot PROM enable, boot PROM location, boot PROM size, interrupt select, and 10BaseT / 10Base2 / AUI selection. Selectable interrupts are IRQ2, IRQ3, IRQ4, IRQ5, IRQ10, IRQ11, and IRQ12.

The 10Base2 DC-DC converter can be turned off to minimize power when idle, and is automatically disabled when the 4I29 is setup for twisted pair use. The all CMOS design of the 4I29 plus efficient DC-DC converter keeps operating power below 2 watts.

Standard packet buffer is 16K bytes but a 64K byte buffer version is available if desired.

A 32 pin dip socket allows installation of 28 or 32 pin boot PROMs from network vendors. The 4I29 is capable of writing to the boot PROM, allowing use of a 5V flash boot PROM if desired.

**NE2000 MODE:** The 4I29 can operate in a NE2000 compatible mode. This is an I/O only mode that uses no memory space except possibly for the boot PROM. The 4I29 is compatible with 8 and 16 bit NE2000 operation. Packet buffer size is 16K bytes in the 16 bit mode and 8K bytes in the 8 bit mode.

**WD8013 MODE:** The 4I29 can operate in a shared memory mode that is compatible with the WD8013. This mode uses 16K of shared memory (16 bit mode) or 8K bytes of shared memory (8 bit mode) located at a driver selected location. The shared memory option has slightly higher performance than the I/O mapped mode.

**8/16 BIT BUS OPERATION:** The 4I29 can operate with 8 and 16 bit CPUs. 8 or 16 bit mode is selected with a jumper.

**REMOTE BNC TRANSCEIVER:** A 4I29 with panel mount BNC (10Base2) transceiver is available as an 4I29 option (4I29E). This transceiver connects to the 4I29's AUI connector and gets its isolated power from the 4I29's DC-DC converter. The transceiver can be mounted up to one foot away from the 4I29 card. The remote transceiver is only 1.5" by 1.5" square.

**AUI CONNECTOR:** All 4I29 models except the 4I29E have an AUI interface available for external transceivers. The AUI connector uses system +12V

**BOOT PROM:** The 4I29 has a socket that can accommodate 16K through 64K boot EPROMS or 5V flash EEPROMS. Boot PROM can be located anywhere in the C0000 to D0000 address range. Boot PROM location and size are EEPROM setup options.

**INTERRUPTS:** Interrupt selection is via EEPROM setup. Selectable interrupts are IRQ2, IRQ3, IRQ4, IRQ5, IRQ10, IRQ11, IRQ12.

**I/O ADDRESSES:** Base I/O address is selected with an EEPROM setup option. Selectable addresses are: 240H, 280H, 2C0H, 300H, 320H, 340H, and 360H.

**POWER:** The 4I29 requires only +5V power for operation. If an external transceiver is connected to the AUI port, +12 system power must be available.

**CONFIGURATION:** An easy to use configuration utility is supplied with the 4I29 for selecting the various EEPROM options. Configuration files are provided for several standard 4I29 setups

**4I29 SPECIFICATIONS:**

	Min	Max	Units	Notes
<b>POWER REQUIREMENTS:</b>				
Supply voltage	4.5	5.5	V	
Supply current	----	100	mA	Transceiver off
Supply current	----	250	mA	Transceiver on
<b>ENVIRONMENTAL:</b>				
Temperature range -C version	0	+70	°C	
Temperature range -I version	-40	+85	°C	
Relative humidity	0	90	Percent	Non-Condensing

**ORDERING INFORMATION:**

- 4I29-E      4I29 with external panel mount BNC (10base2) transceiver
  - 4I29-2      4I29 with on card BNC (10base2) transceiver
  - 4I29-T      4I29 with on card twisted pair (10baseT) transceiver
  - 4I29-2T     4I29 with on card BNC (10Base2) and on card (10baseT) transceiver
- Add -I to specify industrial temperature range



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