



## Embedded Device Server

- ▶ Easily network-enable virtually any serial device
- ▶ Flexible, well-developed IP protocol stack
- ▶ Ethernet RJ45 (10Base-T) connector on the board
- ▶ TTL serial interface
- ▶ Two serial ports
- ▶ Accepts 5Vdc regulated input power
- ▶ HTTP, Serial, Telnet and SNMP management
- ▶ Flash ROM for easy software upgrades
- ▶ Custom protocol support available



## Design Ethernet Connectivity into Your Products Quickly and Economically

The Lantronix Micro is a board-level product for OEM users who want to embed proven mainstream Ethernet connectivity into their products quickly and economically.

Building Ethernet connectivity into a product is no simple task. It requires a significant investment in hardware and software integration – often in areas outside of core competencies. So why build it yourself when there is a cost-effective alternative?

Lantronix embedded device networking products provide proven, integrated hardware and software solutions for manufacturers who want to add Ethernet connectivity to their products.

Device networking starts with a Device Server™. These amazing products allow most any device with a serial port (TTL) to connect to Ethernet networks quickly and cost-effectively. Device Servers include

all of the elements needed for device networking a processor, real-time operating system (RTOS), a robust TCP/IP stack, a web server and a network connection. All the connected product needs is a header, providing connections to power and a TTL serial port.

The Micro brings over a decade of networking experience, rock-solid IP firmware and extensive applications support to industrial and commercial environments.

Measuring only 1.6 in x 1.9 in, the Micro can easily fit into almost any size serial device that would benefit from network connectivity. A TTL connector provides the serial interface, and an RJ45 (10BASE-T) is available for Ethernet access. The Micro includes the same IP protocol stack found on the other Lantronix products.





## Features

### Protocols

ARP, UDP, TCP, Telnet, ICMP, SNMP, DHCP, TFTP and HTTP

### Networking Interface

RJ45 (10Base-T) Ethernet

### Serial Interface

TTL level (Asynchronous)

### Data Rates

300 bps to 115.2 Kbps

### Serial Line Formats

Characters: 7 or 8 data bits

Stop bits: 1 or 2

Parity: odd, even, none

### Modem Controls

DTR, RTS, CTS, DCD

### Flow Control

XON/XOFF (Software)

CTS/RTS (Hardware)

### Management

HTTP

SNMP

Serial login

Telnet login

### System Software

Flash ROM standard:  
downloadable from a TCP/IP  
host (TFTP) or over serial port

### Diagnostic LEDs

Transmit Data

Receive Data

Good Link

### Compatibility

Ethernet: Version 2.0/IEEE 802.3

### Power Requirements

5Vdc +/-5% at ~ 200mA

### Memory

Flash: 512K

RAM: 128K

NVRAM: 2K Bytes

### Environmental

Standard Temperature  
0° to 70° C (32° to 158° F)

Storage Temperature  
-40° to 85° C (-40° to 185° F)

### Physical Dimensions (L x W)

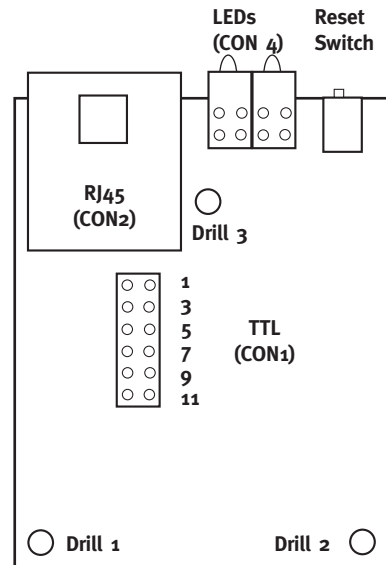
49.15 x 40 mm (1.935 x 1.575 in)

Mechanical drawing available at [www.lantronix.com](http://www.lantronix.com)

### Warranty

1-year limited warranty

## Board Layout and Pinouts



### CON1 (2 x 6 Pins)

Pin	Function
1	+5V
2	GND
3	RXA (Input)
4	TXA (Output)
5	RTSA (Output)
6	DTRA (Output)
7	CTSA (Input)
8	DCDA (Input)
9	R/V/A (Output)
10	RESET to be pulled low
11	RXB (Input – optional)
12	TXB (Output – optional)

### CON2 (RJ45)

Pin	Con1
1	TX+
2	TX-
3	RX+
4	NC
5	NC
6	RX-
7	NC
8	NC

### CON3 (2 x 2 pins in place of RJ45)

Pin	Function
1	TX+
2	TX-
3	RX+
4	RX-

### CON4 (2 x 4 pins in place of LEDs)

Pin	Function
1	+5V
2	+5V
3	LED2
4	LED1
5	+5V
6	+5V
7	LED3
8	LED "good link"

### Ordering Information

Contact your local Lantronix representative or Lantronix directly:

**United States** [sales@lantronix.com](mailto:sales@lantronix.com) or call OEM sales support at 800-526-8764.

**Asia Pacific Region** [AsiaPacific\\_sales@lantronix.com](mailto:AsiaPacific_sales@lantronix.com)

**Europe** [eu\\_sales@lantronix.com](mailto:eu_sales@lantronix.com)

**Japan** [japan\\_sales@lantronix.com](mailto:japan_sales@lantronix.com)

**Latin America & Caribbean** [la\\_sales@lantronix.com](mailto:la_sales@lantronix.com)

### Part Number and Description

CO-E1-00AAR	Micro with no RJ45 and LEDs, RoHS
CO-E1-11AAR	Micro Device Server, Ethernet, RoHS
CO-E1-IAP-R	Micro Industrial Protocol, RoHS
CO-E1M-00AAR	Micro with no RJ45 and LEDs, with MODBUS Firmware, RoHS
CO-E1M-11AAR	Micro with MODBUS Firmware, RoHS
CO-E2-00AB-R	Micro Generic, 2 Serial Port support with no RJ45 and LEDs, RoHS
CO-E2-113AAR	Micro, 2 Serial Port support and TTL Header on back of board, RoHS
CO-E2-11AAR	Micro with 2 Serial Port support, RoHS
CO-E2-12AA-R	Micro with no LEDs, but instead, Header Pins on the TTL side, RoHS
CO-E2-21ABR	Micro, Pin Header on TTL side instead of RJ45, RoHS
CO-E2-22AAR	Micro with 2 TTL Channels, RoHS
CO-E2-22AB-R	Micro with 2TTL Channel, RoHS
CO-E2-IAPR	Micro 2 Channel IAP, RoHS



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