# LANTRONIX®



#### **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<sup>™</sup>.

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**

5Vpc +/-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 (LxW)

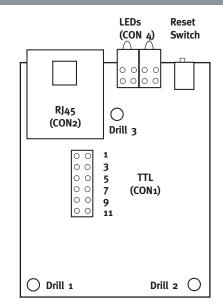
49.15 x 40 mm (1.935 x 1.575 in)

Mechanical drawing available at www.lantronix.com

#### **Warranty**

1-year limited warranty

### **Board Layout and Pinouts**



COI	N1 (2 x 6 Pins)	CON2 (RJ45)		CON3 (2 x 2 pins in place of RJ45)	
Pin	Function	Pin	Con1	Pin	Function
1	+5V	1	TX+	1	TX+
2	GND	2	TX-	2	TX-
3	RXA (Input)	3	RX+	3	RX+
4	TXA (Output)	4	NC	4	RX-
5	RTSA (Output)	5	NC		
6	DTRA (Output)	6	RX-	CO	N4 (2 x 4 pins in place of LEDs)
7	CTSA (Input)	7	NC	Pin	Function
8	DCDA (Input)	8	NC	1	+5V
9	R/V/A (Output)			2	+5V
10	RESET to be pulled low			3	LED2
11	RXB (Input – optional)			4	LED1
12	TXB (Output – optional)			5	+5V
				6	+5V
				7	LED3
				8	LED "good link"

#### **Ordering Information**

CO-E1-00AAR

Contact your local Lantronix representative or Lantronix directly:

Micro with no RJ45 and LEDS, RoHS

United States sales@lantronix.com or call OEM sales support at 800-526-8764.

Asia Pacific Region AsiaPacific\_sales@lantronix.com

Europe eu\_sales@lantronix.com

Japan japan\_sales@lantronix.com

Latin America & Caribbean la\_sales@lantronix.com

#### **Part Number and Description**

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