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LANTRONIX®



## Embedded Device Server

- Flexible, well-developed IP protocol stack
- TTL serial interface
- Two serial ports
- Accepts 5 VDC regulated input power
- HTTP, serial, Telnet and SNMP management
- Flash ROM for easy software upgrades
- Custom protocol support available
- 256-bit AES encryption for secure communications

RoHS WEEE COMPLIANT

# Build 10/100 Base-T Ethernet Connectivity into Your Products Quickly and Economically

**The Lantronix Micro100 is a board-level product for OEM users who want to embed proven mainstream Ethernet connectivity in 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 better alternative?

The Micro100 embedded device server provides an integrated solution to add proven Ethernet connectivity to an existing design quickly and economically, and with a high level of flexibility.

Device networking starts with a Device Server™. These amazing products enable most any device with serial capability (TTL) to become a fully functional member of an Ethernet network. Device Servers include all of the elements needed to network-enable your products – a processor, real-time operating system (RTOS), a robust TCP/IP stack, a web server, and a network connection. All the connected product additionally needs is a header, providing connections to a power source and to a TTL serial port.

The Micro100 brings over a decade of device networking experience, rock-solid IP firmware, extensive applications support and advanced encryption standards to industrial and commercial environments.

Measuring only 49 x 40 mm the Micro100 can easily fit into almost any size serial device that would benefit from network connectivity. It includes a serial interface TTL connector and 10/100 Base-T Ethernet RJ45 jack. The Micro100 includes the same IP protocol stack found on the other Lantronix embedded products.

RoHS-compliant, the Micro100 meets Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



## Features

**Protocols**
ARP, UDP, TCP/IP, Telnet, ICMP, SNMP, DHCP, TFTP and HTTP

**Networking Interface**
RJ45 (10/100Base-T) Ethernet

**Serial Interface**
TTL level (Asynchronous)

**Data Rates**
300 bps to 230 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
Security
Optional 256-bit AES
Password protection

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

**Diagnostic LEDs**
Serial Channel Status
Ethernet Link Status
Diagnostic Information

**Compatibility**
Ethernet: Version 2.0/IEEE 802.3

**Power Requirements**
5 VDC +/-5% at ~ 200 mA

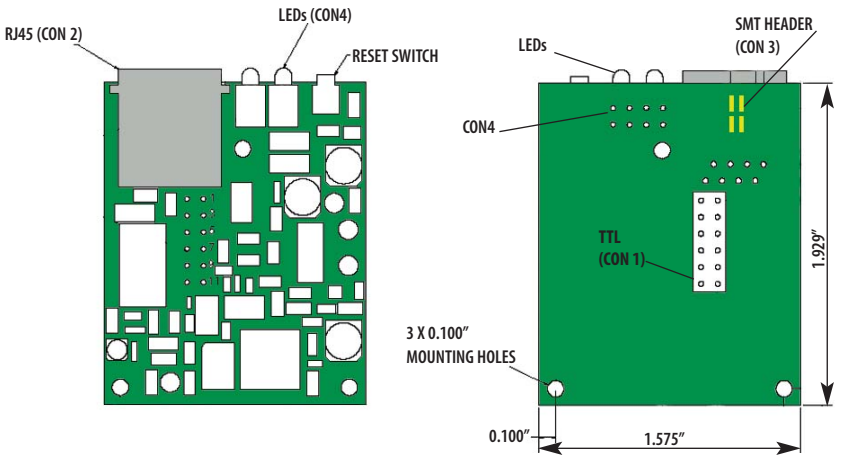
**Memory**
Flash: 512K
RAM: 256K - zero wait

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

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

**Physical Dimensions (W x H)**
49 x 40 mm (1.929 x 1.575 in)

## Board Layout and Pinouts




**CON1 (2 x 6 Pins)TTL**

| 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 |
| 11 | RXB (Input) |
| 12 | TXB (Output) |

**CON2 (RJ45)**

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

**CON3 (2 x 2 SMT 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 | +3.3V |
| 2 | +3.3V |
| 3 | DIAG (Red) |
| 4 | CH1 (Green) |
| 5 | +3.3V |
| 6 | +3.3V |
| 7 | CH2 (Yellow) |
| 8 | Link (Green) |



For customers who also require the flexibility of also offering an 802.11 wireless solution, the pin-compatible WiMicro™ is available!

**Warranty**
2-year limited warranty

**Ordering Information**

| Part Number | Description |
|---|---|
| M000AA002-01R | Micro100, No RJ45 connector, No LEDS, with TTL pin header, RoHS |
| M000AA0E2-01R | AES Encrypted Micro100, No RJ45 connector, No LEDS, with TTL pin header, RoHS |
| M011AA002-01R | Micro100 with RJ45 connector, LEDS, with TTL pin header, RoHS |
| M011AA0E2-01R | AES Encrypted Micro100 with RJ45 connector, LEDS, with TTL pin header, RoHS |
| M022AA002-01R | Micro100, Pin header for Ethernet, Pin header for LED connection, with TTL pin header, RoHS |
| M022AA0E2-01R | AES Encrypted Micro100, Pin header for Ethernet, Pin header for LED connection, with TTL pin header, RoHS |

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MO11AA002-01R MO22AA002-01R

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