



### THE FASTEST WAY TO WIRELESS

ConnexNet™ provides a complete hardware and software solution for adding wireless network connectivity to serial-based applications. The radio module serves as a conduit between the user and multiple destination devices via a local network or the internet. Controlling distant OEM networks is as easy as accessing the internet.

Unlike other industrial wireless Ethernet offerings, ConnexNet does not require a COM port director. All software controls communicate directly to the device, greatly improving system latency. ConnexNet supports a wireless Ethernet-to-serial bridge to allow separate networks to talk with one another simultaneously.

Each unit is small and easily portable for use in mobile or temporary settings as well as for fixed installations. FHSS modulation ensures reliable transmissions, while use of the 900MHz ISM band makes ConnexNet ready to use with no further certification.

### FEATURES AND BENEFITS

- Wireless LAN service supporting Ethernet interface
- Comprehensive networking protocols
- Equipped with a CPU, real-time OS , TCP/IP stack
- Provides control from virtually anywhere via the internet

### MARKETS

- Industrial Control
- Electronic Sign
- Vending & Gaming
- Point of Sale
- Building & Utility

**global solutions: local support.™**

USA: +1 800 492.2320

Europe: +44 1628 858 940

Asia: +852 2268 6567

wirelessinfo@lairdtech.com

[www.lairdtech.com/wireless](http://www.lairdtech.com/wireless)

Parameter	CN4790-1000	CN4490-1000
<b>Architecture</b>	Peer-to-peer	Server-client
<b>Network interface</b>		
Standard	IEEE 802.3	IEEE 802.3
Physical layer	10/100BaseT	10/100BaseT
Mode	Half-duplex and full-duplex	Half-duplex and full-duplex
<b>Interface Connector</b>	RJ-45	RJ-45
<b>Frequency band</b>	902-928 MHz	902-928 MHz
<b>Modulation</b>	FHSS FSK	FHSS FSK
<b>Serial interface data rate</b>	Up to 115.2 Kbps	Up to 115.2 Kbps
<b>Output power</b>	1000mW variable	1000mW variable
<b>Input power</b>	7Vdc to 18Vdc	7Vdc to 18Vdc
<b>Power draw (@ 12Vdc)</b>	400mA TX, 40mA RX	400mA TX, 40mA RX
<b>Power supply</b>	AC transformer via 6-foot cable (183 cm)	AC transformer via 6-foot cable (183 cm)
<b>Electrical requirements</b>		
	Line voltage 100-120V (240V outside U.S.)	Line voltage 100-120V (240V outside U.S.)
	Frequency 50-60 Hz	Frequency 50-60 Hz
<b>Channels</b>	Up to 32	Up to 32
<b>Security</b>	1-byte system ID, DES	1-byte system ID, DES
<b>Sensitivity</b>	-99 dB @ full RF data rate	-99 dB @ full RF data rate
<b>Range (line-of-sight)</b>	Up to 20 miles (32 km)	Up to 20 miles (32 km)
<b>Temperature</b>	-40° to +80°C	-40° to +80°C
<b>Humidity (non-condensing)</b>	10% to 90%	10% to 90%
<b>Dimensions</b>	4.75 x 2.75 x 1.17 in. (121 x 70 x 30 mm)	4.75 x 2.75 x 1.17 in. (121 x 70 x 30 mm)
<b>Weight</b>	< 6 oz (< 170 g)	< 6 oz (< 170 g)
<b>Antenna; connector</b>	Dipole; RPSMA jack (female)*	Dipole; RPSMA jack (female)*
<b>Configuration software</b>	Optional, for Windows OS	Optional, for Windows OS

\*Higher-gain antenna options are available; ask a Laird Technologies sales associate for more information.



## INTERFACE PROTOCOL

- a) On-the-fly radio module configuration:
  - Destination address
  - RF transmit power
  - Co-located servers
  - RF channel
  - Broadcast/addressed
- b) Raw data or transmit/receive API
- c) 9-bit serial interface mode
- d) Long range mode, enables sensitivity control
- e) Variable baud rate
- f) RF packet size, timeout control
- g) Onboard temperature sensor
- h) Handshaking, CTS/RTS, full modem-mode available
- i) In-range indicator
- j) Error detection
  - Onboard CRC
  - Duplicate packet filtering
- k) Data encryption standard (DES)

## RF PROTOCOL MODES

- a) Communication
  - Unicast (one-to-one addressing)
  - Broadcast (one-to-multiples addressing)
- b) Acknowledgement mode (ACK)
  - API with hardware and/or software
  - ACK indication
- c) One-beacon mode
- d) Dynamic radio data table:
  - Retains data from up to 12 radio module

## ETHERNET PROTOCOL

- a) Network Communication:
  - ARP, UDP, TCP, ICMP, TelNet, TFTP, AutoIP, DHCP, HTTP, SNMP
- b) Connections to serial port:
  - TCP, UDP, TelNet, and Ethernet/Serial and Ethernet/Ethernet Bridge.
- c) Firmware update
  - TFTP
- d) Addressing, routing, data block handling over the network IP

### LWS-SPEC-CONNEXNET 0209

Any information furnished by Laird Technologies and its agents is believed to be accurate and reliable. Responsibility for the use and application of Laird Technologies materials rests with the end user since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability, or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies terms and conditions of sale in effect from time to time, a copy of which will be furnished upon request. For further information please visit our website at [www.lairdtech.com](http://www.lairdtech.com). Alternatively contact: [wirelessinfo@lairdtech.com](mailto:wirelessinfo@lairdtech.com). Bluetooth™ is a trademark owned by Bluetooth SIG, Inc., USA and licensed to Laird Technologies.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Laird Technologies:](#)

[CN4490-1000](#)