



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

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USA: +1 800 492.2320

Europe: +44 1628 858 940

Asia: +852 2268 6567

wirelessinfo@lairdtech.com

www.lairdtech.com/wireless

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

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