



ConnexLink 900MHz

The Fastest Way to Wireless

ConnexLink stand-alone transceivers can be set up in minutes to virtually cut the cables between RS232 or RS485 devices. Their flexibility and price allow users to quickly upgrade wired terminals to cordless operation in industrial, commercial even residential applications.

Powered by a 1W, 900MHz radio, each unit is small and easily portable for use in mobile and temporary settings as well as for fixed installations. Optional software enables custom configurations based on user needs.

ConnexLink implements a proprietary communication protocol to provide secure local data transmissions. Because it uses FHSS technology, the data remains reliable over distances of up to 20 miles (32 km) line-of sight. Use of license-free frequency bands ensures that units are ready to use with no further certification requirements. Every units is backed by a 30-day guarantee and a one-year warranty.

Application Ideas

Process Control

Set up any factory more conveniently. Process engineers can quickly move RS232 links from machine to machine without costly wiring.

Kiosks & POS

Small and portable, **ConnexLink** makes it possible to set up equipment where it best serves customers. Use at retail stores, service stations, events, etc.

Data Logging

Upload data to your PC from your logger or monitor without getting up from the chair. Use **ConnexLink** for tank level monitoring, control instruments, etc.

Electronic Signs

Faster, cheaper and less invasive than trenching to lay cable, **ConnexLinks** attach to the serial ports of the PC and sign or scoreboard.

Network hard-to-reach remote RS232 devices, without cables!



ConnexLink Highlights

- ✓ Durable industrial-grade enclosure with mounting flanges.
- ✓ Transmits around corners and through walls.
- ✓ Reliable communications up to 115200 kbps.
- ✓ Supports point-to-point and point-to-multipoint applications.

Specifications:

PARAMETER	CL4490-1000
Frequency Band	902 – 928MHz
Modulation	FHSS FSK
Standard interface	RS232 (DB9 Male) or RS485 (6-Pin Terminal Block)
Serial interface data rate	Up to 115200 kbps
Output power	5mW – 1000mW variable
Input power	7Vdc – 18Vdc
Current draw (@ 12Vdc)	400mA TXD, 40mA RXD
Power Supply	AC transformer via 6' cable (183cm)
Electrical requirements	Line voltage 100-120V; frequency 50 – 60Hz (240V outside the US)
Channels	Up to 32
Security	1-byte system ID, DES
Sensitivity	-99dB @ full RF data rate
Range (line-of sight)	Up to 20 miles (32km)
Temperature	-40 to 80 degrees Celsius
Humidity (non-condensing)	10% to 90%
Weight	< 6oz (< 170g)
Dimensions	4.75 x 2.75 x 1.17 inches (121 x 70 x 30 mm)
Antenna Connector	Reverse Polarity SMA Jack (Female)

RF Protocol

Acknowledgment

Transmitted packets are successfully acknowledged. If not, they are resent until successful (user-selectable number of retries). Error detection is used and duplicate data is filtered out before sending to the host interface. Full duplex control setting allows equal time for transmitting and receiving data at the RF level, keeping a single transmitter from dominating the system bandwidth.

RF Addressing Modes

Unicast (one-to-one addressing)
Broadcast (one-to-many addressing)

Interface Protocol

Change configuration Commands

Connexlink's configuration can be changed through AT commands. Change-on-the-fly parameters include Client or Server designation, destination MAC address, channel number (to communicate with a different server), enter/exit low power modes, etc. Custom settings are available by user request.

Handshaking

CTS to hold-off the host; RTS to hold-off the transceiver. Full modem mode available.

In-Range Indicator

Hardware link indication of client in range of server.

Error Handling

Error Detection

Multi-stage error detection with transmitter retries for RF system and raw data. Duplicate packets are filtered out when data is received more than once due to retries and missed ACK's.

Data encryption standard (DES)

DES is an established algorithm and a 56-bit key stored in an onboard EEPROM to protect data.