Connect One™

Secure iLAN™
Serial-to-Ethernet Device Server

General Description:

Secure iLAN™ is a secure serial-to-Ethernet device server that enables installed serial devices to connect via a serial port to the Internet over a 10/100BaseT Ethernet LAN. Secure iLAN acts as a security gap between the host application and the network.

Secure iLAN eliminates the need for any hardware modifications to the host device. Simply connect a serial cable from Secure iLAN's RS232 or RS485 connector to your device, and an Ethernet cable from your local area network to Secure iLAN's RJ-45 connector.

The Internet engine inside Secure iLAN is Connect One's remotely updateable iChip™ CO2128 Secure Internet Controller™.

Connect One's AT+i™ protocol eliminates the need for Internet programming and minimizes changes to the host application. Connect One's SerialNET™ operating mode completely eliminates the need for changes to the host application, as it is a true plug-and-play operating mode.

Secure iLAN provides one secure SSL3/TLS1 socket, up to 10 simultaneous active TCP/UDP sockets, and two listening sockets. It also includes an HTTP web server with two websites: one for configuration and one for the application.

Secure iLAN is powered by an external 9VDC power supply. Alternatively, it can be powered through pin 9 of the RS232/RS485 connector to the host device.

Application Program Interface:
- Connect One's AT+i protocol
- SerialNET mode for transparent serial data-to-Internet bridging

Internet Protocols:
ARP, ICMP, IP, UDP, TCP, DHCP, DNS, NTP, SMTP, POP3, MIME, HTTP, FTP and TELNET

Security Protocols:
SSL3/TLS1, HTTPS, FTPS, RSA, AES-128/256, 3DES, RC-4, SHA-1 and MD-5

Protocols Accelerated in HW:
AES, 3DES and SHA

Hardware Description:
- Size: 110x67x28mm (4.3x2.6x1.1")
- Weight: 96g (3.4 oz.)
- Operating Humidity: 90% maximum (non-condensing)
- Operating Temperature Range: 5° to 50°C (41° to 122°F)
- Power Supply Input: 6-24VDC. 9V power supply included unless otherwise specified. Power from host device optionally available through pin 9 of serial connector.
- Power Consumption: 0.8W @ 9VDC
- LEDs:
  LNK – Link status
  ACT – LAN activity
  SNET – SerialNET mode activity
  PWR – Power
- Connectors: RS232/RS485, RJ-45, 2.1mm power jack
- Plastic enclosure

Performance Specifications:
- Host Data Rate: Up to 1Mbps
- Serial Data Format (AT+i mode): Asynchronous character; binary; 8 data bits; no parity; 1 stop bit.
- Serial Data Format (SerialNET mode): Asynchronous character; binary; 7 or 8 data bits; odd, even or no parity; 1 stop bit.
- Flow Control: hardware (DTR, RTS, CTS, DSR) and software flow control

Warranty: One-year limited warranty

Approvals: CE; FCC pending

Configuration:

Secure iLAN firmware and device configuration parameters can be remotely updated over the Internet. Secure iLAN can be easily configured via Connect One's iChipConfig utility. This Windows-based utility enables quick configuration of the iChip CO2128 via a local serial connection or via the Web. The iChipConfig utility also enables packaging of the application's website.

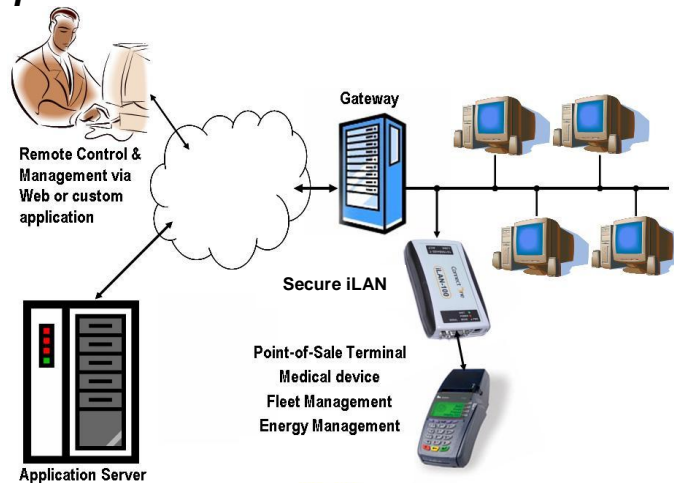**Serial Connector, Power Jack, Mode Select, SerialNET and Power LEDs**

**RJ-45 Connector
Link and Activity LEDs**

Pin Assignments:

Pin #	RS232 Connector	RS485 Connector
1	CDH Output	Not Connected
2	TXD Output	TXD+ Output
3	RXD Input	RXD+ Input
4	Short to pin 6	Short to pin 6
5	Ground	Ground
6	Short to pin 4	Short to pin 4
7	CTS Input	RXD- Input
8	RTS Output	TXD- Output
9	V_{in}=6-24V	V_{in}=6-24V

Typical Application:

Gateway

Remote Control & Management via Web or custom application

Secure iLAN

Point-of-Sale Terminal
Medical device
Fleet Management
Energy Management

Application Server

Ordering Information:

iL2128-232-009: Secure iLAN without power supply, RS232 connector
iL2128-232-110: Secure iLAN with 110V power supply, RS232 connector
iL2128-232-220: Secure iLAN with 220V power supply, RS232 connector
iL2128-485-009: Secure iLAN without power supply, RS485 connector
iL2128-485-110: Secure iLAN with 110V power supply, RS485 connector
iL2128-485-220: Secure iLAN with 220V power supply, RS485 connector