CN2610 Series

8 and 16-port Dual LAN RS-232 Terminal Servers

Features

> LCD control panel for easy on-site management
> Dual LAN with 2 IP addresses and 2 MAC addresses
> Redundant COM with two active network connections
> Dual host redundancy
> Real COM/TTY drivers for Windows and Linux

: Overview

Redundancy is an important issue for industry, and several different solutions have been developed to prevent damage caused by equipment or software failures. "Watchdog" hardware is required to utilize redundant hardware, and a "Token" switching mechanism is required for software. The CN2610 terminal server uses its built-in dual LAN ports to implement a "redundant COM" mode to keep your applications running smoothly.
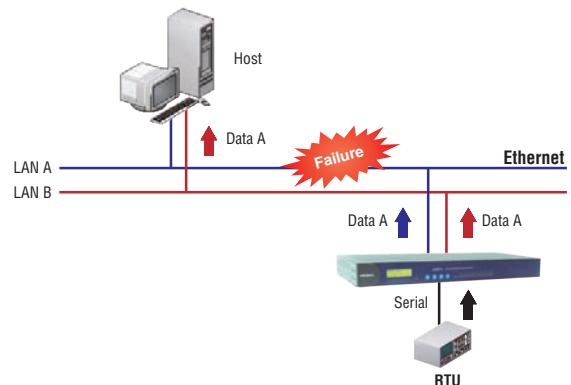
Dual LAN Redundancy

The CN2610 has two separate LAN ports that can be connected to separate LAN networks. Dual LAN redundancy involves setting up two separate physical networks to connect the PC host with the CN2610. In this case, the PC host must also be installed with two LAN cards. If one of the networks fails, the PC host will still be able to communicate with your serial devices over the other LAN.
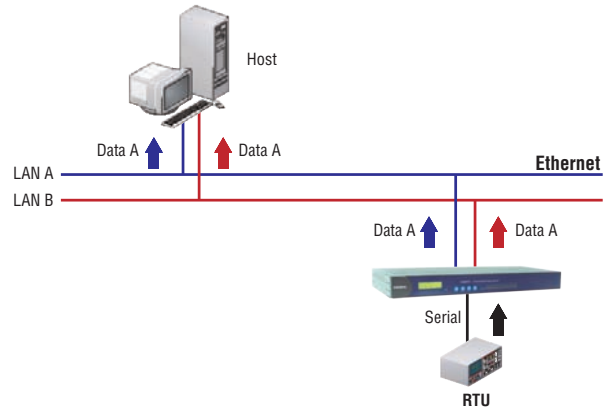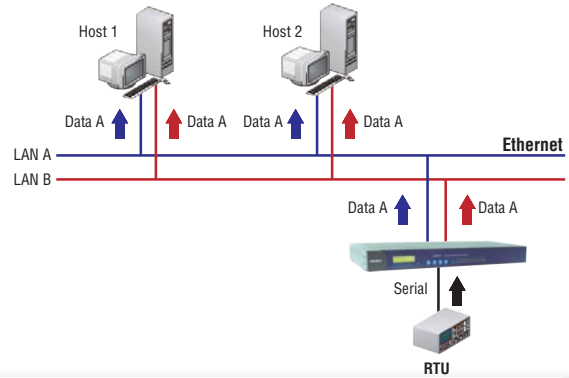
Redundant COM

The "Redundant COM" (patent pending) operation mode can be used to set up a redundant LAN between the CN2610's COM ports and the host computer. The redundant structure involves using the CN2610's two LAN ports to set up two independent LANs that connect the CN2610 to the host computer. If either of the two LANs fails, the other LAN will continue transmitting packets between the serial devices and the host, with the data transmitted through the CN2610.

One of the biggest advantages of using MOXA's Redundant COM mode is that the "switching time" is zero. What this means is that if one of the LANs fails, data transmission between PC host the serial devices will not be interrupted.
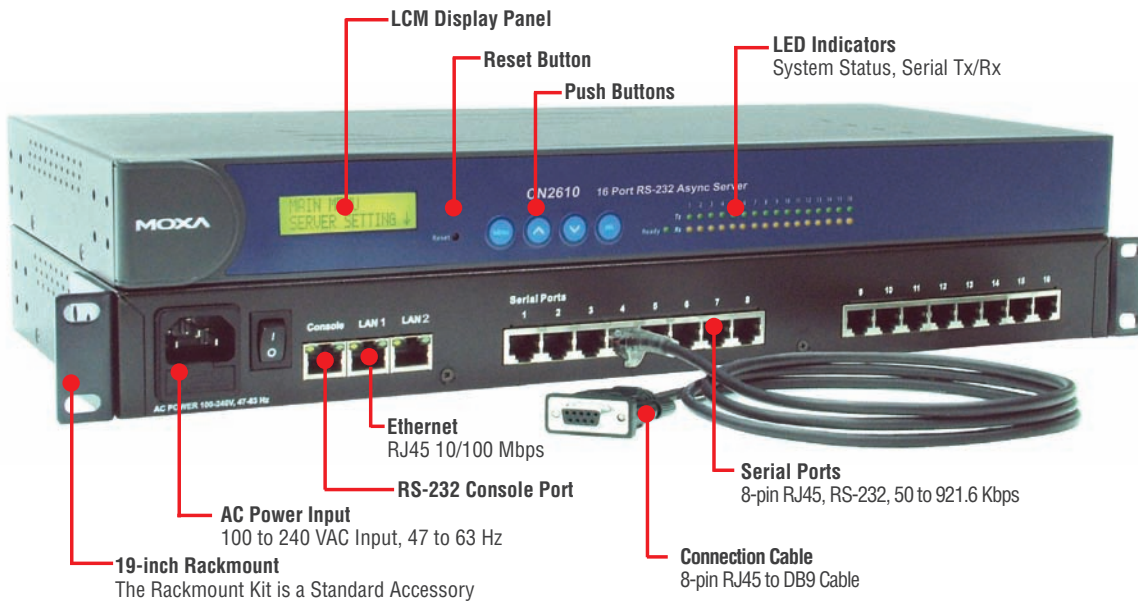
Dual Host Redundancy

The CN2610's dual LAN cards can also be used to set up "dual host" redundancy. In this case, both networks (LAN A and LAN B in the figure) are connected to two different hosts. If either of the two hosts shuts down unexpectedly, the other host will continue transmitting packets to, and receiving packets from, the serial devices connected to the CN2610.

CN2610 Series Appearance

- LCM Display Panel
- Reset Button
- Push Buttons
- **LED Indicators**
  System Status, Serial Tx/Rx
- **Ethernet**
  RJ45 10/100 Mbps
- **RS-232 Console Port**
- **Serial Ports**
  8-pin RJ45, RS-232, 50 to 921.6 Kbps
- **AC Power Input**
  100 to 240 VAC Input, 47 to 63 Hz
- **Connection Cable**
  8-pin RJ45 to DB9 Cable
- **19-inch Rackmount**
  The Rackmount Kit is a Standard Accessory

⁞ Ordering Information

CN2610-8: 8-port RS-232 Dual LAN Terminal Server
**CN2610-16:** 16-port RS-232 Dual LAN Terminal Server

Package Checklist

- 1 CN2610
- Quick Installation Guide
- Document and Software CD-ROM
- 1 Power Cord (AC models only)*
- 1 DB9 serial cable (CBL-RJ45F9-150)
- 1 DB25 serial cable (CBL-RJ45M25-150)

* Power cords are available with US, Euro, UK, and JP plugs.

Optional Accessories

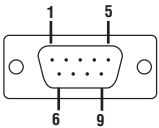**Additional serial cables can be purchased separately (see p. 3).**

Dimensions

198 mm (7.8 in)

45 mm (1.77 in)

440 mm (17.3 in)

480 mm (19 in)
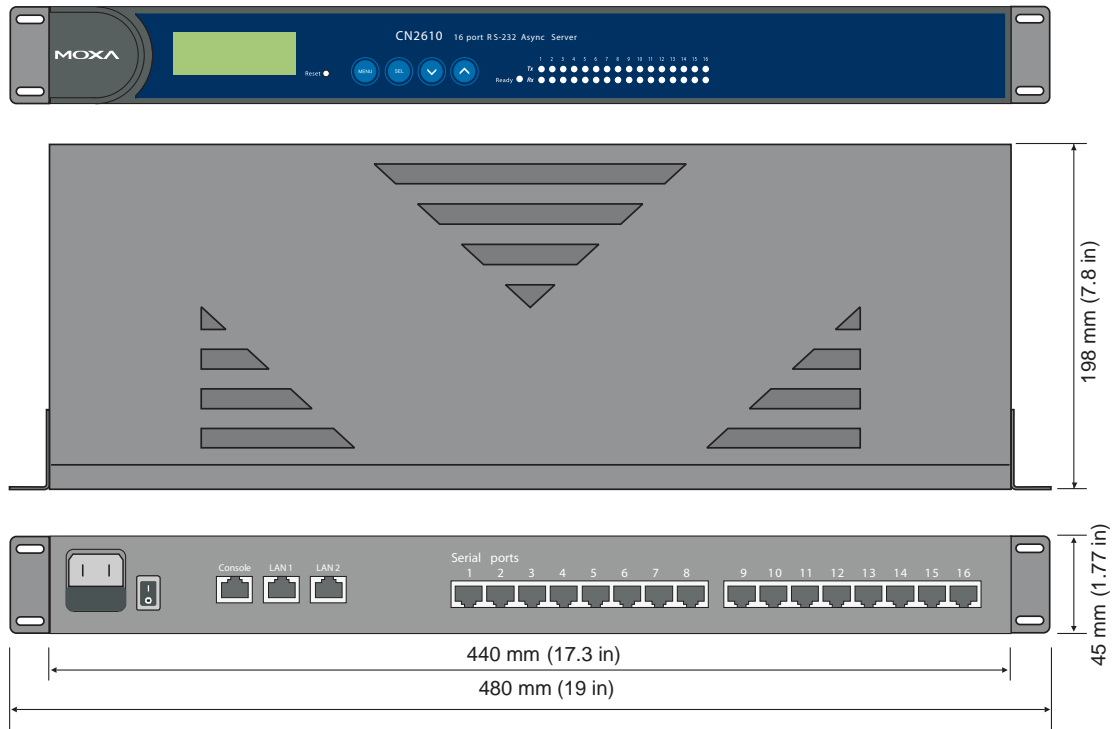
: **Connection Options**

RJ45 to DB-type cables
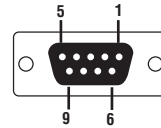
DB9 (Male)

CBL-RJ45M9-150

8-pin RJ45 to DB9 (male), 150 cm cable
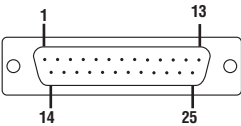

DB9 (Female)

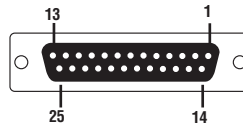**CBL-RJ45F9-150**

8-pin RJ45 to DB9 (female), 150 cm cable

DB25 (Male)

CBL-RJ45M25-150

8-pin RJ45 to DB25 (male), 150 cm cable

DB25 (Female)

CBL-RJ45F25-150

8-pin RJ45 to DB25 (female), 150 cm cable

: **Pin Assignment**

RJ45 RS-232 port
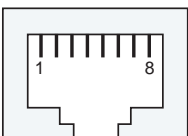
Pin	Signals
1	DSR (in)
2	RTS (out)
3	GND
4	TxD (out)

Pin	Signals
5	RxD (in)
6	DCD (in)
7	CTS (in)
8	DTR (out)

Secure Terminal Servers/Terminal Servers

⋮ Specifications

Hardware

CPU: MOXA CPU, 192 MHz

RAM: 4 MB

Flash ROM: 2 MB

I/O Controller: MU860 UART

LAN

Protection: Built-in 1.5 KV magnetic isolation

No. of Ports: 2

Speed: 10/100 Mbps

Serial

Interface: RS-232 (8-pin RJ45)

No. of Ports: 8 (CN2610-8), 16 (CN2610-16)

Signals: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Console Port: 1 RS-232 console port (8-pin RJ45)

Serial Line Protection: 15 KV ESD for all signals

Power Line Protection: 1 KV Burst (EFT), EN61000-4-4

2 KV Surge, EN61000-4-5

Serial Communication Parameters

Parity: None, Even, Odd, Space, Mark

Data Bits: 5, 6, 7, 8

Stop Bit(s): 1, 1.5, 2

Flow Control: RTS/CTS, XON/XOFF

Speed: 50 bps to 921.6 Kbps

Software

Protocols: TCP/IP, UDP, ICMP, NetBUEI, DHCP, PPP, SLIP, CSLIP

Applications: Real COM, Printer, Reverse Telnet, Telnet, Redundant COM, DRDAS, Dial in/out

Security: RADIUS, dialback, PAP, CHAP, local user / password

Management: SNMP MIB-II

IP Routing: Static, RIP-I, RIP-II

Software Features

Utilities are provided for the following operating systems:
Windows 95/98/ME/NT/2000/XP/2003/XP x64/2003 x64/Vista x64

Windows drivers:
Windows 95/98/ME/NT/2000/XP/2003/XP x64/2003 x64/Vista x64

Fixed TTY drivers:
SCO Unix, SCO OpenServer 5, SCO OpenServer 6, UnixWare 7, SVR4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD 5, FreeBSD 6

Real TTY drivers:
Linux kernels 2.2.x, 2.4.x, 2.6.x

Connection Limits

Terminal Sessions: 8 sessions per port

Power Requirements

Power Input: 100 to 240V, 47 to 63 Hz

Power Consumption: 235 mA for 100V, 145 mA for 240V

Environment

Operating Temperature: 0 to 55°C (32 to 131°F), 5 to 95% RH

Storage Temperature: -20 to 70°C (-4 to 158°F), 5 to 95% RH

Mechanical Specifications

Gross Weight: CN2610-8: 3540g
CN2610-16: 3620g

Dimensions: 440 x 198 x 45 mm (17.3 x 7.8 x 1.77 inch)

Regulatory Approvals

EMC:

CE: EN55022 Class A / EN55024

FCC: FCC part 15 subpart B, Class A

Safety:

UL: UL60950

TÜV: EN60950

MTBF

CN2610-8: 124859 hours

CN2610-16: 105915 hours

Warranty: 5 years