CN2510 Series

## 8/16-Port RS-232 Async Servers

Features

- **LCM interface for easy on-site management**
- **Console Management for Router, PBX, Server**
- **Stand-alone Remote Access Server for up to 16 dial-in users**
- **PPP/SLIP with RADIUS authentication and RIP I/II Routing protocol**
- **Real COM/TTY driver for Windows and Linux**
- **Connect up to 16 serial Terminals to a UNIX host with 1 IP Address**
- **SNMP MIB II for network management**
- **ASPP or Standard BSD for Socket Programming**
- **±48 VDC for Telecom Applications**

Remote Device Console Management

For most companies, the performance of IT equipment plays a decisive role in daily operation. To keep a server, router, PBX, or leased line modem working properly, least downtime and instant troubleshooting is important. Most IT devices with screen and keyboard use KVM for in-band management. However, an RS-232 console is often used as a last resort for all devices.

CN2510 provides an easy-to-use console port management solution that comes in a convenient 1U rack-mountable size. CN2510 can easily establish a console management environment with its RS-232 serial ports, which connect to the console ports of Unix servers or network equipment, such as routers. CN2510 turns the RS-232 console port of the device into a network-accessible node, allowing you to use Telnet to configure and manage the device from anywhere on the network, and provides full modem control signals, ensuring compatibility with a wide range of serial peripherals.
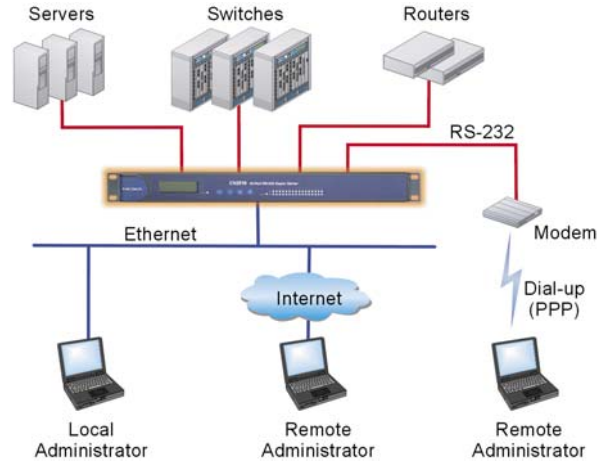
Application: Console Management

In-Band and Out-of-Band Network Management

In-Band Network Management refers to using Telnet over a local LAN to open connections to devices that have a serial console port. By linking the RS-232 console ports of the devices to CN2510, you can access the devices with a specific IP: Port combination. This allows you to monitor and manage the devices from anywhere in your company over an Ethernet or Wireless LAN network.

Out-of-Band Network Management refers to when an alternate path for remote access, such as a dial-up line or ISDN line, is used to reach network devices. Out-of-Band network management is used when you're traveling or at home. When an emergency arises, you can use the alternative communication medium to access, and then reboot or reconfigure the devices remotely. This is particularly useful for high traffic devices such as routers or PBXs.

Stand-alone RAS Service

CN2510 supports PPP/SLIP dial-up ports, letting you connect to your network devices from a remote location. Even when you are out of the office, you will still have full control of all devices in your corporate data center or control room.

From a hardware point of view, CN2510 is easy to install, and is complemented by CN2510's powerful software functions, including security, authorization, IP routing, and management functions that provide MIS personnel with a simple and convenient way to monitor and control target devices located in a data center or control room.

Security Functions

User Authentication

This feature is important for validating privileges of users who attempt to gain access to console ports. The authentication procedure requires a user name and password that can be checked against the CN2510 database or RADIUS server.
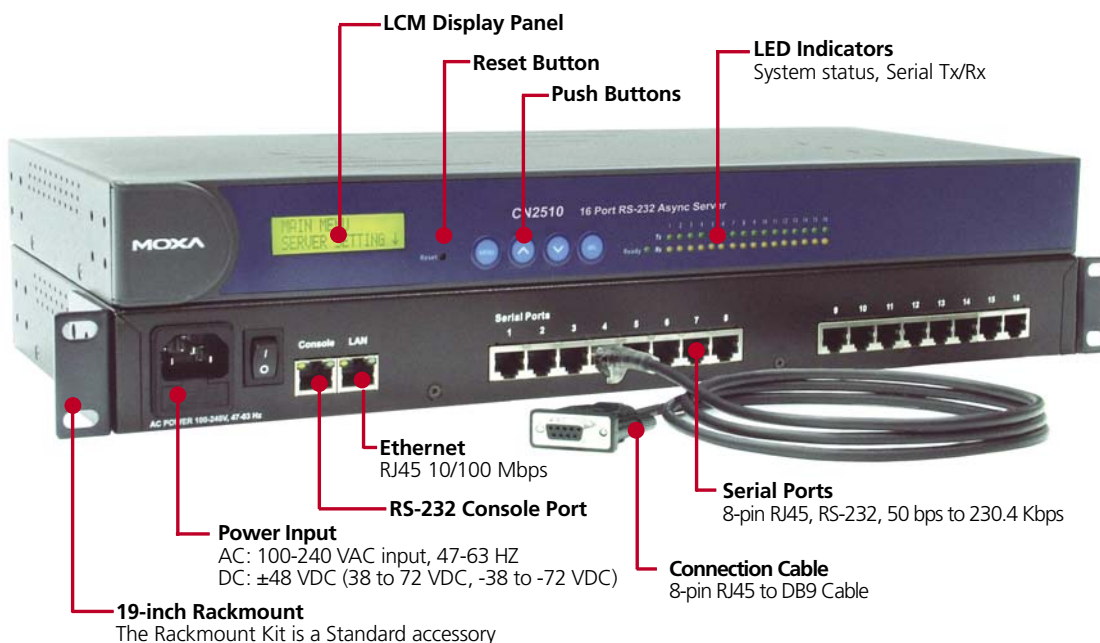
Callback

When using dial-up out-of-band network manegement, CN2510 provides a convenient callback function to reverse dial to management hosts. This helps ensure that only registered users or hosts can access the network remotely via CN2510. Moreover, the callback function makes it easier to consolidate long distance phone costs, and provides an added convenience to managers when they need to access the network from home.
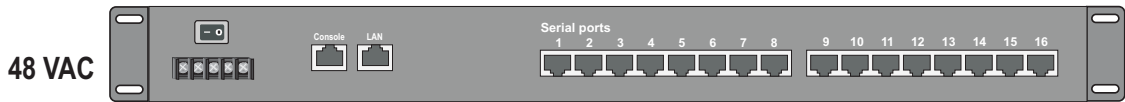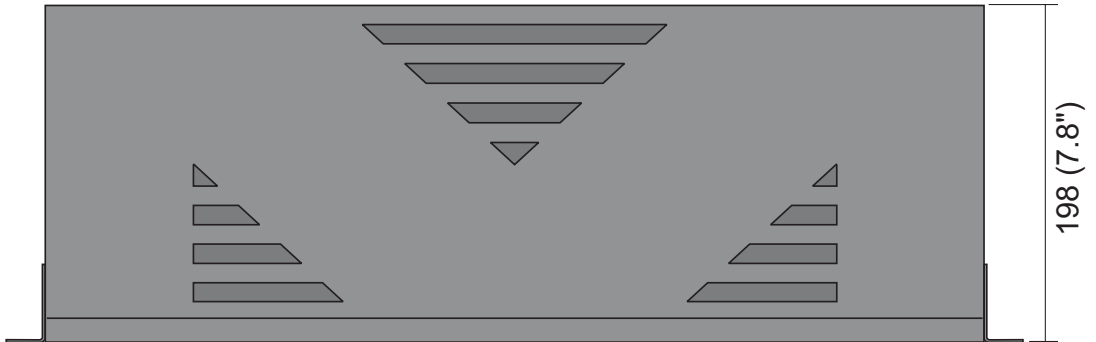
Added Features

- Windows Real COM Port Driver
- Linux Real TTY Drivers supported
- Unix based Fixed TTY driver

- 15 KV Surge Protection for all signals
- Suitable as a Terminal Server
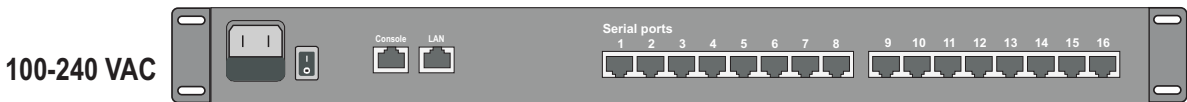- Suitable as a Serial Printer Server

CN2510 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 bps to 230.4 Kbps

Power Input
AC: 100-240 VAC input, 47-63 HZ
DC: ±48 VDC (38 to 72 VDC, -38 to -72 VDC)

Connection Cable
8-pin RJ45 to DB9 Cable

19-inch Rackmount
The Rackmount Kit is a Standard accessory

CN2510 Series

◤ Dimensions

CN2510 *16 port RS-232 Async Server*

198 (7.8")

48 VAC

100-240 VAC

Serial ports
1 2 3 4 5 6 7 8   9 10 11 12 13 14 15 16

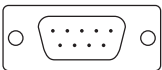**45 (1.77")**

440 (17.3")

480 (19")

◤ Optional Accessories
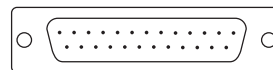
RJ45 to DB-type cables

CBL-RJ45M9-150

8-pin RJ45 to male DB9, 150 cm

CBL-RJ45M25-150

8-pin RJ45 to male DB25, 150 cm

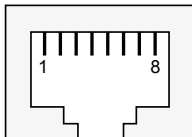**CBL-RJ45F25-150**

8-pin RJ45 to female DB25,150 cm

CBL-RJ45F9-150

8-pin RJ45 to female DB9,150 cm

◤ Pin Assignment

RJ45 RS-232 port pin assignment

1   8

PIN	RS-232
1	DSR (in)
2	RTS (out)
3	GND
4	TxD (out)

PIN	RS-232
5	RxD (in)
6	DCD (in)
7	CTS (in)
8	DTR (out)

Specifications

Hardware
Kernel
CPU: 32-bit RISC
RAM: 4 MB
Flash ROM: 2 MB
I/O controller: 16C550C Compatible UART
LAN
LAN: 10/100 Mbps, 8-pin RJ45
Protection: Built-in 1.5 KV magnetic isolation
No. of ports: 1
Serial Interface
Interface: RS-232, 8-pin RJ45
No. of ports: 16 ports (CN2510-16), 8 ports (CN2510-8)
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
0.5 KV Surge, EN61000-4-5
Serial Communication Parameters
Parity: None, Even, Odd, Space, Mark
Data bits: 5, 6, 7, 8
Stop bits: 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: Telnet, rlogin, rtelnet, DNS, LPD, RCP, WINS, Dial-on-Demand

Security: RADIUS, Dialback, PAP, CHAP, Local user / password
Management: SNMP MIB-II
IP routing: Static, RIP-I, RIP-II.
Programming
Real COM/TTY Driver: Windows 9x/NT/ME/2K/XP/2003, Linux (kernel 2.2.x, 2.4.x)
Fixed TTY Driver: SCO OpenServer 5, SCO Unixware 7.x, Linux (kernel 2.2.x , 2.4.x)
Moxa ASPP: Windows 9x/NT/ME/2K/XP/2003, Linux, all UNIX based on socket support
Socket: Standard BSD Socket interface
Applications
Terminal Sessions: 8 sessions per port
Power Requirements
Power Input:
AC: 100 to 240V, 47 to 63 Hz
DC: ±48 VDC (38 to 72 VDC, -38 to -72 VDC)
Power Consumption:
CN2510-8/16: 235 mA for 100V, 145 mA for 240V
CN2510-8/16-48V: 260 mA (at 48V max.)
Environmental
Operating Temperature:
0 to 55°C (32 to 131°F), 5 to 95% RH
Storage Temperature:
-40 to 85°C (-4 to 167°F), 5 to 95% RH
Regulatory Approvals
EMC: FCC Class A, CE Class A
Safety: UL, CUL, TÜV

Ordering Information

CN2510-8
8-port RS-232 Async Server, 100 to 240 VAC power input
CN2510-16
16-port RS-232 Async Server, 100 to 240 VAC power input
CN2510-8-48V V2
8-port RS-232 Async Server, ±48 VDC power input
CN2510-16-48V V2
16-port RS-232 Async Server, ±48 VDC power input

All items include:
• CN2510 Quick installation Guide
• Document and software CD-ROM
• Power Cord x 1 (included with AC version of the product)
• CBL-RJ45F9-150 x 1
• CBL-RJ45M25-150 x 1

Optional Cables
CBL-RJ45M9-150: 8-pin RJ45 to male DB9 cable, 150 cm
CBL-RJ45F9-150: 8-pin RJ45 to female DB9 cable, 150 cm
CBL-RJ45M25-150: 8-pin RJ45 to male DB25 cable, 150 cm
CBL-RJ45F25-150: 8-pin RJ45 to female DB25 cable, 150 cm

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