

## SN0148

48-Port Serial Console Server with Dual Power/LAN



The SN series of serial console servers integrate cutting edge technologies with secure enterprise communications. Available in 48-port models, the serial console server offers both in-band and out-of-band remote serial console access to servers and network devices, via a direct Telnet/SSH client or an applet viewer. SN works in tandem with the Power Over the NET™ remote power management system. Both can be managed with [CC2000](#) management software to provide centralized data center management and integrated power management. With their comprehensive features, SN series of serial console servers help maximize IT productivity, provide scalability and reduce operational costs.

The serial console server is used to connect serial devices to the Ethernet network to meet the needs of demanding applications in industrial control, data acquisition, environment monitoring, and remote facility and equipment management. It offers versatile operation modes including Real COM Port, TCP Server/Client, UDP Server/Client, Serial Tunnel and Virtual Modem. It helps transform the capabilities of legacy serial devices to take advantage of the TCP/IP network to allow remote access, configuration, and management of the serial devices from anywhere in the world over the Internet.

SN series is a complete secure remote access and control solution. Access rights and privilege control can be applied to individual ports. Consolidated authentication simplifies password management. Data encryption is provided. Logging and alerting helps speed resolution of issues and mitigates risk. Enhanced security functions ensure the compliance of internal security mandates. The ease of use, accessibility and manageability of the SN series serial console servers enables a quick response to changing demands and helps meet ultimate business goals.

The SN series offers out-of-band (OOB) management that enables IT administrators to manage network devices (e.g. router, switch, UPS) in server rooms via management networks that are separate from the main/production networks. So if there's difficulty in accessing the network devices through the production network, the administrators can still access them via the console server. The console server offers several out-of-band access methods, such as a direct console connection from a local computer, a USB console connection from a laptop, a PSTN connection via modem, or a dedicated management network connection via the Ethernet (LAN) port.

The SN series of serial console servers save you time and money by allowing administrators to manage their data centers from practically anywhere – minimizing travel and MTTR (Mean Time to Repair) costs, ensuring the highest availability for data center services possible.

- [System Compatibility Table](#)
- [Adapter Diagrams](#)

## Features

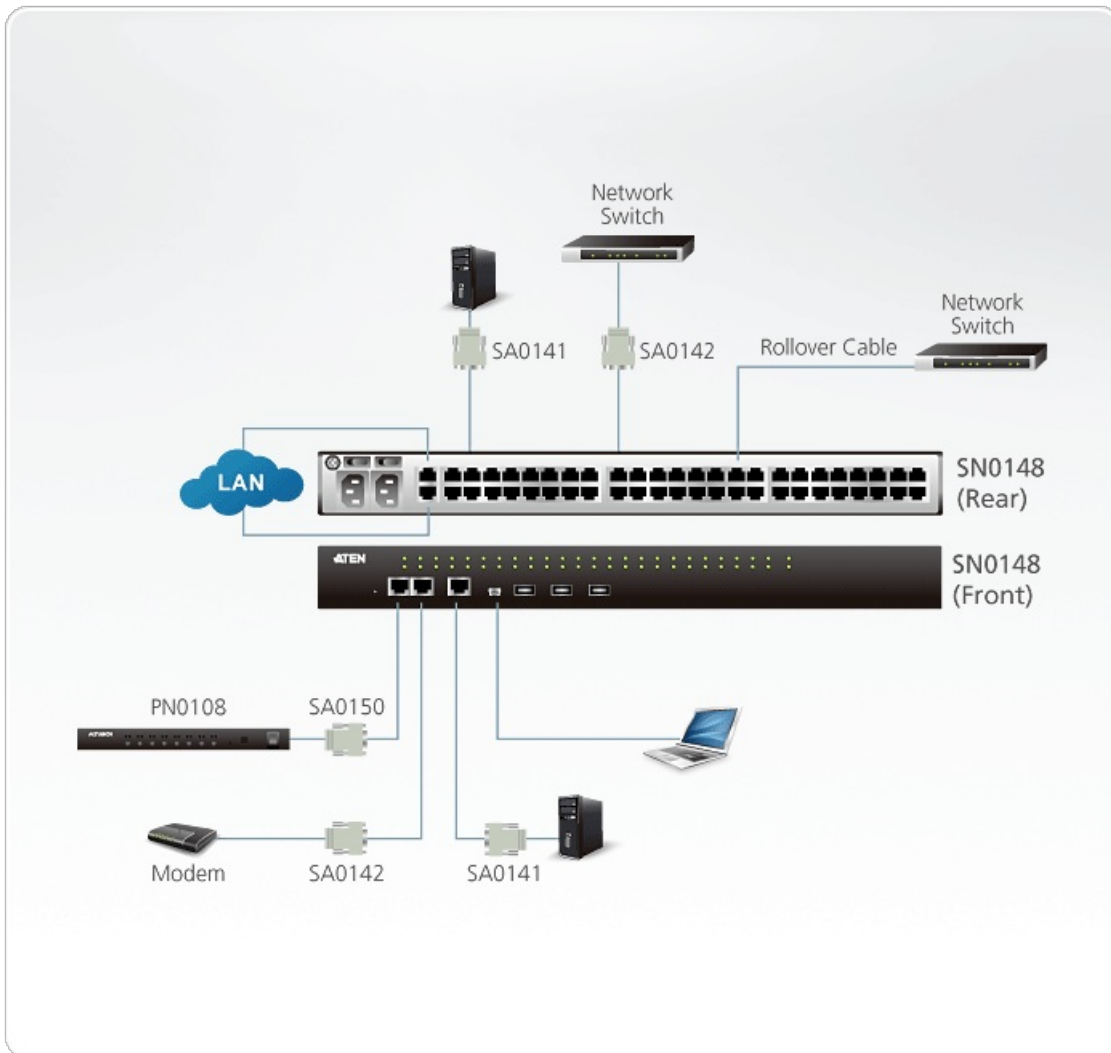
- **System Accessibility and Availability**
- [Secure in-band and out-of-band network access to serial consoles](#)
- In-band access of Ethernet
- Browser access with an intuitive GUI
- Terminal-based access with a menu-driven UI
- Out-of-band access of dial-up modem
- Modem dial-in/dial-back/dial-out
- [Front access USB ports for USB storage or for USB-based PC cards](#)
- [Laptop USB Console \(LUC\) port for extra local console access via laptop computer](#)
- Dual Ethernet ports for failover or for dual IP addresses access
- Dual power supply
- **Serial Console Management**
- [Convenient and simple access via browser or Telnet/SSH client](#)
- Port access via Telnet/SSH client and third-party client such as PuTTY
- Direct port access from Telnet client – bypassing login to SN
- [Convenient port access via the applet serial viewer from SN Web GUI](#)
- Selectable Telnet or SSH for the serial viewer
- Selectable ActiveX or Java for the serial viewer
- Comprehensive viewer function – Copy/paste, logging, data import, Macro, broadcast and Message Board
- Sun Solaris ready – Sun "break-safe"
- Alert String
- Command filter - Administrators can restrict users to execute only predefined commands\*
- Data buffering
- Multiple users simultaneously access to the same port – up to 16 connections per port.
- Selectable mode for multiple simultaneous access – Exclusive/Occupy/Share mode
- [Integrated with Power Over the NET product for port and power outlet association](#)
- **Security**
- SSH and SSL (TLS v1.0 / TLS v1.1 / TLS v1.2) support
- Secure login from browser with TLS 1.2 data encryption and RSA 2048-bit certificates
- Configurable user permissions for port access and control
- Configurable group permission for port access and control
- Local and remote authentication and logging
- SN0148 support RADIUS, TACACS+, LDAP/AD, and Kerberos
- IP filtering and MAC filtering
- High-Grade Security – supports FIPS 140-2 level 1 security standards that use an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate #1747, #2398, #2473)
- **System Management**
- System configuration via Web browser of HTTP/HTTPS, Telnet/SSH client and local console
- [System log and event logging](#)
- [Comprehensive logging and event notification](#)
- ATEN Log server and Syslog server
- SNMP agent
- Event notification – SN0148 support notification of SMTP email, SNMP Trap, and SMS (with additional mobile device)
- Backup/restore system configuration
- Firmware upgradeable
- Multi-browser support – Internet Explorer, Chrome, Firefox, Safari, Opera, Mozilla, and Netscape
- Customizable global time zone
- NTP for time server synchronization
- DHCP for dynamic IP address assignment
- IPv6 support
- [Integrated with CC2000 for data center centralized management](#)
- **Serial Device Management**
- Versatile serial operating modes – SN0148 support Real COM, TCP Server, TCP Client, UDP, Serial Tunnel and Virtual Modem
- 128-bit/256-bit SSL encryption (TLS v1.0 / TLS v1.1 / TLS v1.2) for Real COM, TCP Server, TCP Client, Serial Tunnel and Virtual Modem
- Multiple simultaneous connections to the same port – up to 16 connections per port
- Real COM driver for Windows 2000/XP/Vista/7 and Windows Server 2003/2008
- Real TTY driver for Linux
- Fixed TTY driver for UNIX
- **Language**
- Web-based GUI multi-language – available for Japanese, Korean, German, Russian, Simplified Chinese and Traditional Chinese

## Specification

Connectors	
Serial	48 x RJ-45 Female

LAN Ports	2 x RJ-45 Female
Power	2 x IEC 60320/C14
Local Console	1 x RJ-45 Female
Modem	1 x RJ-45 Female
PON	1 x RJ-45 Female
Laptop USB Console (LUC) Port	1 x Mini USB
USB Port	3 x USB Type A Female
Switches	
Power	2 x Rocker Switch
Reset	1 x Recessed Pushbutton
LEDs	
Serial	48 (Green)
Link	N/A
10/100 Mbps	N/A
10/100/1000 Mbps	2 (Red/Orange/Green)
Power	2 (Blue)
Maximum Input Power Rating	100–240VAC; 50/60Hz; 1.8A
Power Consumption	AC110V:29.5W:170BTU/h AC220V:29.9W:172BTU/h  Note: <ul style="list-style-type: none"> <li>● The measurement in Watts indicates the typical power consumption of the device with no external loading.</li> <li>● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.</li> </ul>
Environmental	
Operating Temperature	0 - 40°C
Storage Temperature	-20 - 60°C
Humidity	0 - 80% RH, Non-condensing
Physical Properties	
Housing	Metal
Weight	4.92 kg ( 10.84 lb )
Dimensions (L x W x H)	43.72 x 32.77 x 4.40 cm (17.21 x 12.9 x 1.73 in.)
Note	For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format.

# Diagram



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