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## BDCOM S2900-24T4X-2AC

# BDCOM S2900-24T4X-2AC Ethernet Layer-3 Lite Switch User Manual

Model: S2900-24T4X-2AC

## 1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the BDCOM S2900-24T4X-2AC Ethernet Layer-3 Lite Switch. Please read this manual thoroughly before using the device to ensure proper setup and functionality. Retain this document for future reference.

## 2. PRODUCT OVERVIEW

The BDCOM S2900-24T4X-2AC is a high-performance Ethernet Layer-3 Lite switch designed for various networking environments. It features 24 Gigabit Ethernet (GE) TX ports and 4 10 Gigabit Ethernet (10GE) SFP+ ports, providing flexible connectivity options. The switch also includes a console port for management and supports standard 19-inch rack-mounted installation.

### 2.1 Key Features

- 1 Console port for device management.
- 24 Gigabit Ethernet (GE) TX ports for high-speed network connections.
- 4 10 Gigabit Ethernet (10GE/GE) SFP+ ports for uplink or high-bandwidth connections.
- AC 110V ~ 220V input, 60 Hz power supply.
- Fanless design for silent operation.
- 1U height, suitable for standard 19-inch rack-mounted installation.

### 2.2 Front Panel Layout

# BDCOM 24-Port Gigabit RJ45 +4-Port 10G SFP+ L3-lite Stackable Managed Switch with dual AC power

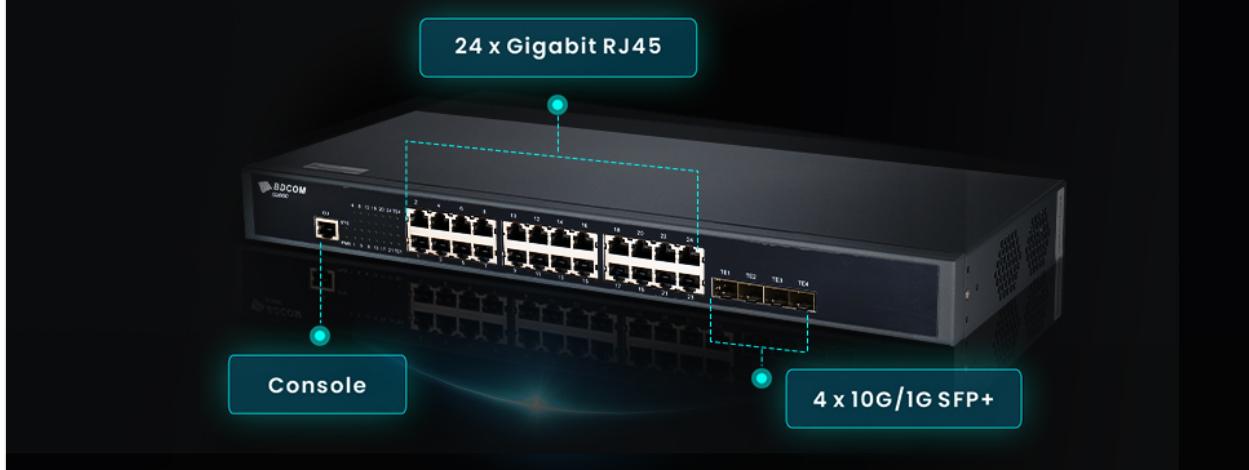


Figure 1: Front Panel Diagram of BDCOM S2900-24T4X-2AC Switch, highlighting 24 Gigabit RJ45 ports, 4 10G/1G SFP+ ports, and the Console port.

- **Console Port:** RJ45 port for command-line interface (CLI) access.
- **GE TX Ports (1-24):** 24 Gigabit Ethernet ports for connecting network devices.
- **10GE/GE SFP+ Ports (TE1-TE4):** 4 SFP+ slots supporting 10 Gigabit or 1 Gigabit fiber optic transceivers.
- **LED Indicators:** System (SYS), Power (PWR), and individual port status indicators.



Figure 2: Detailed front view of the BDCOM S2900-24T4X-2AC switch, showing the arrangement of ports and indicators.

## 2.3 Rear Panel Layout



Figure 3: Rear view of the BDCOM S2900-24T4X-2AC switch, displaying the AC power input and power switch.

- **AC Power Input:** Connector for the AC power cord (100-240 VAC, 50/60 Hz).
- **Power Switch:** On/Off switch for the device.

## 3. INSTALLATION

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Follow these steps for proper installation of your BDCOM S2900-24T4X-2AC switch.

### 3.1 Site Preparation

- Ensure the installation site is clean, dry, and well-ventilated.
- Maintain an ambient temperature between 0°C and 50°C (32°F and 122°F).
- Avoid direct sunlight, heat sources, and excessive dust.
- Ensure adequate space around the switch for proper airflow, especially at the sides where ventilation is located.

### 3.2 Rack Mounting

The switch is designed for standard 19-inch rack-mounted installation (1U height).

1. Attach the provided rack-mount brackets to the sides of the switch using the included screws.
2. Align the switch with the rack posts and secure it using appropriate rack screws.
3. Ensure the switch is level and securely fastened in the rack.

### 3.3 Power Connection

1. Ensure the power switch on the rear panel is in the OFF position.
2. Connect one end of the AC power cord to the power input on the rear panel of the switch.
3. Connect the other end of the AC power cord to a grounded power outlet (100-240 VAC, 50/60 Hz).
4. Flip the power switch to the ON position. The Power (PWR) LED on the front panel should illuminate.

### 3.4 Network Connections

- **GE TX Ports:** Connect standard RJ45 Ethernet cables from your network devices (servers, workstations, other switches) to the GE TX ports (1-24).
- **10GE/GE SFP+ Ports:** Insert compatible SFP+ transceivers into the SFP+ slots (TE1-TE4). Connect fiber optic cables from other network devices or uplinks to these transceivers. Ensure the transceivers and cables match the required speed (1G or 10G).
- **Console Port:** For initial configuration and management, connect a console cable (RJ45 to DB9 or USB) from your management workstation to the console port.

## 4. INITIAL CONFIGURATION

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The BDCOM S2900-24T4X-2AC switch can be configured via its Command Line Interface (CLI) through the console port or via a web-based Graphical User Interface (GUI).

### 4.1 Console Access (CLI)

1. Connect your computer to the switch's console port using a console cable.
2. Open a terminal emulation program (e.g., PuTTY, Tera Term) on your computer.
3. Configure the serial port settings:
  - Baud Rate: 9600

- Data Bits: 8
- Parity: None
- Stop Bits: 1
- Flow Control: None

4. Power on the switch. The boot-up messages will appear in the terminal window.
5. Log in using the default credentials (refer to the official BDCOM documentation for default username and password).
6. Begin configuring the switch according to your network requirements. The command structure is similar to Cisco IOS.

## 4.2 Web-based Management (GUI)

Once the switch has an IP address configured (either manually via CLI or via DHCP), you can access its web interface.

1. Ensure your management computer is on the same network segment as the switch.
2. Open a web browser and enter the switch's IP address.
3. Log in using the appropriate credentials.
4. The GUI provides a user-friendly interface for configuring various switch functions. Note that the included PKI certificate may be expired, requiring generation of a new one for secure access.

*For detailed command references and advanced configuration, please consult the official BDCOM S2900 series documentation.*

## 5. OPERATING INSTRUCTIONS

The BDCOM S2900-24T4X-2AC switch operates automatically once configured. Here are general operational guidelines:

- **Power On/Off:** Use the power switch on the rear panel. Always ensure proper shutdown procedures if available through CLI/GUI before powering off.
- **LED Indicators:** Monitor the front panel LEDs for operational status:
  - **PWR (Power):** Solid green indicates the switch is powered on.
  - **SYS (System):** Indicates system status (e.g., solid green for normal operation, blinking for activity or errors). Refer to the full manual for specific patterns.
  - **Port LEDs:** Indicate link status and activity for each GE and SFP+ port.
- **Network Connectivity:** Ensure all connected devices are properly cabled and configured for network access.
- **Layer-3 Lite Functionality:** The switch supports basic Layer-3 routing capabilities. Configure VLANs, IP interfaces, and static routes as needed for inter-VLAN routing and network segmentation.
- **Link Aggregation (LACP):** For increased bandwidth and redundancy, configure Link Aggregation Control Protocol (LACP) on multiple ports to form a single logical link (port channel). Ensure a lower value for the 'agg-period' parameter if configuring LACP.

## 6. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your switch.

- **Cleaning:** Periodically clean the exterior of the switch with a soft, dry cloth. Do not use liquid or aerosol cleaners. Ensure ventilation openings are free from dust and obstructions.
- **Firmware Updates:** Check the BDCOM official website for the latest firmware updates. Applying updates can improve performance, add features, and fix bugs. Follow the provided instructions carefully during firmware upgrades.
- **Configuration Backup:** Regularly back up your switch configuration to an external storage device. This allows for quick restoration in case of a device reset or failure.
- **Environmental Monitoring:** Ensure the operating environment remains within specified temperature and humidity ranges.

## 7. TROUBLESHOOTING

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This section provides solutions to common issues. For more complex problems, contact technical support.

### 7.1 Power Issues

- **No Power:**
  - Verify the power cord is securely connected to both the switch and the power outlet.
  - Ensure the power switch on the rear panel is in the ON position.
  - Check the power outlet with another device to confirm it is functional.

### 7.2 Network Connectivity Issues

- **No Link on a Port:**
  - Check the Ethernet or fiber cable connection. Ensure it is securely plugged into both the switch port and the connected device.
  - Verify the cable is not damaged. Try a different cable.
  - Ensure the connected device is powered on and functioning correctly.
  - Check the port status LEDs on the switch. If the LED is off, there might be no link.
  - For SFP+ ports, ensure the transceiver is correctly seated and compatible. The switch can be particular about transceivers.
- **Slow Network Performance:**
  - Check for network congestion.
  - Verify duplex and speed settings on the switch port and connected device.
  - Ensure cables are appropriate for the speed (e.g., Cat5e/6 for Gigabit Ethernet).

### 7.3 Management Access Issues

- **Cannot Access CLI via Console:**
  - Verify the console cable connection.
  - Check the serial port settings in your terminal emulation program (Baud Rate, Data Bits, Parity, Stop Bits, Flow Control).
  - Ensure the correct COM port is selected.
- **Cannot Access GUI via Web Browser:**
  - Verify the switch has an IP address and your computer can reach it (ping the IP address).
  - Ensure your web browser is not blocking the connection due to certificate warnings (the default

certificate may be expired).

- Clear browser cache or try a different browser.

## 8. SPECIFICATIONS

Feature	Description
Model	S2900-24T4X-2AC
Ports	24 x GE TX ports, 4 x 10GE/GE SFP+ ports, 1 x Console port
Interface Type	SFP, RJ45
Power Input	AC 100-240V, 50/60 Hz
Fanless Design	Yes
Rack Unit	1U
Installation	Standard 19-inch rack-mounted
Dimensions (LxWxH)	19.69 x 12.6 x 3.15 inches (50 x 32 x 8 cm)
Item Weight	8.6 pounds (3.9 kg)
Case Material	Metal
Operating Temperature	Up to 50°C (122°F)

## 9. SAFETY INFORMATION

Observe the following safety precautions to prevent injury and damage to the device:

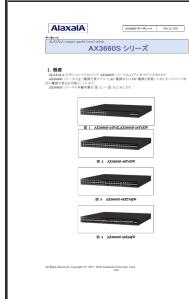
- Always connect the power cord to a grounded electrical outlet.
- Do not operate the device in wet or damp conditions.
- Ensure proper ventilation to prevent overheating.
- Do not open the device casing. Refer all servicing to qualified personnel.
- Avoid placing heavy objects on the switch.
- Disconnect power before cleaning or moving the device.

## 10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official BDCOM website. You may also contact your reseller for assistance.

**BDCOM Official Website:** [www.bdcom.com.cn](http://www.bdcom.com.cn)

## Related Documents - S2900-24T4X-2AC

	<p><a href="#"><b>Declaration of Similarity for BDCOM ONU Models GP1704-4GVC-S, P1704-4GVC-S, GP1704-4GV, P1704-4GV</b></a></p> <p>Shanghai Baud Communication Co., Ltd. declares the electrical similarity between ONU models BDCOM GP1704-4GVC-S, P1704-4GVC-S, GP1704-4GV, and P1704-4GV, detailing differences in model names and CATV board presence.</p>
	<p><a href="#"><b>Moxa MGATE MB3660 Series Quick Installation Guide</b></a></p> <p>Quick installation guide for the Moxa MGATE MB3660 series, covering overview, package contents, hardware features, installation, configuration, pin assignments, and specifications for these Modbus TCP to serial gateways.</p>
	<p><a href="#"><b>ALAXALA AX3660S Series Layer 3 Gigabit Switches Datasheet</b></a></p> <p>Datasheet for the ALAXALA AX3660S Series, a high-end model of box-type Layer 3 switches designed for mission-critical networks, offering high reliability and fast redundant switching. Features include Network Partitioning (VRF), Stack Functionality, advanced routing capabilities, and robust security.</p>
	<p><a href="#"><b>PLANET Layer 3 Gigabit/10 Gigabit Managed Ethernet Switch User Manual</b></a></p> <p>This user manual provides comprehensive details on PLANET's Layer 3 Gigabit and 10 Gigabit Managed Ethernet Switches, including models GS-6311, MGS-6311, and XGS-6311 series. It covers features, specifications, installation, configuration, and management for enterprise networking.</p>

<p><b>CN2600 Series</b> <b>Quick Installation Guide</b></p> <hr/> <p>Version 6.4, June 2021</p> <p>Technical Support Contact Information www.moxa.com/support</p> <p><b>MOXA</b> © 2021 Moxa Inc. All rights reserved.</p>	<p><a href="#"><b>Moxa CN2600 Series Quick Installation Guide - Network Terminal Servers</b></a></p> <p>Quick installation guide for Moxa CN2600 Series dual-LAN terminal servers, covering hardware overview, installation, wiring, and software setup. Features 8 or 16 serial ports and dual Ethernet ports.</p>
<p>Layer 3 Gigabit/10 Gigabit Stackable Managed Switch</p> <p><b>SGS-6310 Series</b> Quick Installation Guide</p>	<p><a href="#"><b>PLANET SGS-6310 Series Stackable Managed Switch Quick Installation Guide</b></a></p> <p>This guide provides instructions for installing and configuring the PLANET SGS-6310 Series Layer 3 Gigabit/10 Gigabit Stackable Managed Switches, covering package contents, switch management (console and web), terminal setup, IP address configuration, password changes, saving configurations, and LED indicators.</p>