Manuals+ — User Manuals Simplified.

QSFPTEK S7600-24X2C 24 Port 10G Ethernet L3 Plus Switch

QSFPTEK S7600-24X2C 24 Port 10G Ethernet L3 Plus Switch User Guide

Contents

QSFPTEK

QSFPTEK S7600-24X2C 24 Port 10G Ethernet L3 Plus Switch

Product Information

Specifications

- Model: S7600-24X2C
- Version: V2.0
- Port: 24x 10G SFP+
- Uplinks: 2x 100G QSFP28
- Support: MLAG, VXLAN

Introduction

The S7600-24X2C is a 24-port 10G Ethernet L3+ Switch designed for high-speed data communication. It features hot-swappable SFP+ ports for 1/10G connections and QSFP28 ports for 40G/100G connections. The switch supports MLAG and VXLAN for enhanced network functionality.

Hardware Overview

Front Panel Ports

- SFP+ Ports: Hot-swappable ports for 1/10G connections
- QSFP28 Ports: Ports for 40G/100G connections
- CON Port: RJ45 console port for serial management
- ETH Port: RJ-45 Ethernet management port
- USB Port: USB management port for software and configuration backup and offline software upgrade

Front Panel LEDs

LED	Status	Description
SYS	Blue On	ID indication function enable
SYS	Green Off	ID indication function disable
ETH	Green On	The system is normally running
ETH	Amber Blinking	The system occur alarm or error
ETH	Off	No power or system is not run or abnormality
SFP+	Green On	Port link. Port is receiving or transmitting packets.
SFP+	Amber Off	Port not link. 10G port link.
QSFP28	Green On	100G/40G port link. 100G/40G packets receiving or transmitting.
QSFP28	Amber Blinking	Port not link. 100G/40G port link.

Back Panel

The back panel of the switch features the power port for connecting the AC power cord.

Installation Requirements

Tools Preparation

- Flathead screwdrivers
- Phillips screwdrivers
- ESD-preventive wrist strap

Temperature/Humidity Requirements

- Temperature: Recommended operating temperature is between 10°C and 40°C.
- Humidity: Recommended operating humidity is between 10% and 95%.

Cleanliness Requirements

Substance	Unit	Concentration Limit
DUST	Particle/m3	3 X 10^4 (No visible dust on the tabletop for three days)
SO2	mg/m3	0.2
H2S	mg/m3	0.006
NH3	mg/m3	0.05
Cl2	mg/m3	0.01

Product Usage Instructions

Mounting the Switch

To mount the switch, follow these steps:

1. Prepare the necessary tools, including flathead and Phillips screwdrivers.
2. Ensure the installation area meets the temperature, humidity, and cleanliness requirements.
3. Choose a suitable location for mounting the switch.
4. Use the flathead screwdriver to secure the switch to the mounting surface using the provided screws.

Connecting the Power

To connect the power, follow these steps:

1. Plug the AC power cord into the switch power port on the back of the switch.
2. Connect the other end of the power cord to an AC power source equipment.

Connecting the SFP+ Ports

To connect devices to the SFP+ ports, follow these steps:

1. Insert the SFP+ module into the SFP+ port.
2. Plug a fiber patch cable into the SFP+ transceiver.
3. Connect the other end of the fiber patch cable to the device that you want to realize data communication.

Connecting the QSFP28 Port

To connect devices to the QSFP28 port, follow these steps:

1. Insert the QSFP28 module into the QSFP28 port.
2. Plug a fiber patch cable into the QSFP28 transceiver.
3. Connect the other end of the fiber patch cable to the device that you want to realize data communication.

Connecting the Management Ports

Connecting the Console Port
To connect a console for serial management, follow these steps:

1. Prepare a console cable.
2. Insert the RJ45 connector of the console cable into the console port on the switch.
3. Connect the D89 female connector on the other end of the console cable to the serial port on the computer host.

Connecting the ETH Port

To connect an Ethernet management port, follow these steps:

1. Prepare a standard RJ45 Ethernet patch cable.
2. Insert one end of the RJ45 Ethernet patch cable into the computer RJ45 port.
3. Connect the RJ45 connector on the other end of the patch cable to the ETH port on the switch.

Connecting the USB Port

To connect a USB management port, follow these steps:

1. Prepare a Universal Serial Bus (USB) flash disk.
2. Insert the USB flash disk into the switch USB port.

Configuring the Switch

To configure the switch using the web-based interface, follow these steps:

1. Launch a web browser on a computer connected to the switch.
2. Enter the IP address of the switch in the browser's address bar.
3. Login with the provided username and password.
4. Follow the on-screen instructions to configure the switch settings.

FAQ

- Q: What are the supported uplink speeds for this switch?

  A: This switch supports uplink speeds of 100G and 40G through its QSFP28 ports.
- Q: Can I use this switch for data communication over fiber connections?

  A: Yes, you can use the SFP+ ports of this switch along with fiber patch cables to realize data communication over fiber connections.
- Q: How can I access the switch's web-based interface?

  A: To access the switch's web-based interface, you need to connect a computer to the ETH port of the switch and enter its IP address in a web browser.

24-Port 10G Ethernet L3+ Switch
24x 10G SFP+ Ports, with 2x 100G QSFP28 Uplinks, Support MLAG, VXLAN

Introduction

QSFPTEK S7600-24X2C L3+ aggregation switch is designed with 24x 10G SFP+ ports and 2x 40/100G QSFP28 uplinks. Each QSFP28 port can be split into 4x 10G ports or 4x 25G ports, providing converged 10G, 25G, 40G, and 100G fiber links. This 24-port switch delivers an 880 Gbps switching capacity and 540 Mpps forwarding rate to meet high-performance aggregation layer requirements. The 10GbE network switch is equipped with 2 hot-swap AC power supplies (1+1 redundancy) and 3 built-in smart fans (2+1 redundancy), providing hardware redundancy for enhanced reliability. As a layer 3+ managed switch, it supports full layer 3 features (static routing, RIP, OSPF, BGP, etc.) and advanced data center features such as MLAG for high-reliability and VXLAN, NVGRE, GENEVE tunnel technology for virtual networking. S7600 series aggregation switches support remote direct memory access (RDMA), which over other network APIs for lower latency, CPU load, and higher bandwidth. This 24-port 10Gb switch caters to the Ethernet aggregation platform to HCI (hyper-converged infrastructure), cloud networking, data center, and enterprise applications.

Accessories

Power Cord x2

Console Cable x1

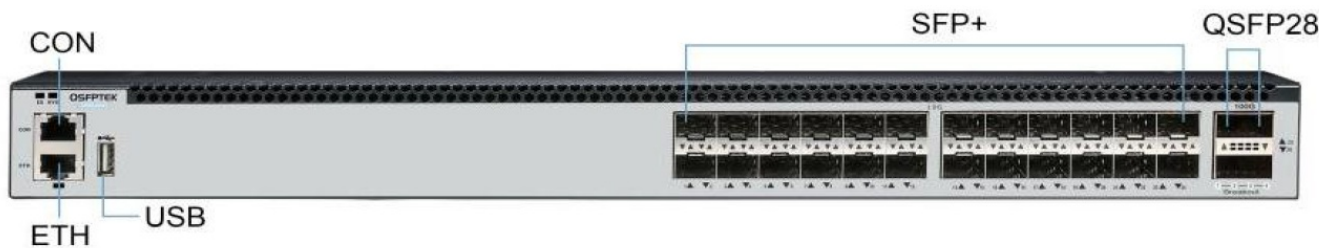RJ45 Ethernet Cable x1

Grounding Cable x1

Rubber Pad x4

Mounting Bracket x2

M4 Screw x8

Hardware Overview

Front Panel Ports

Ports	Description
SFP+	Hot-swappable SFP+ ports for 1/10G connection
QSFP28	QSFP28 ports for 40G/100G connection
CON	An RJ45 console port for serial management
ETH	An RJ-45 Ethernet management port
USB	A USB management port for software and configuration backup and offline software upgrade

Front Panel LEDs
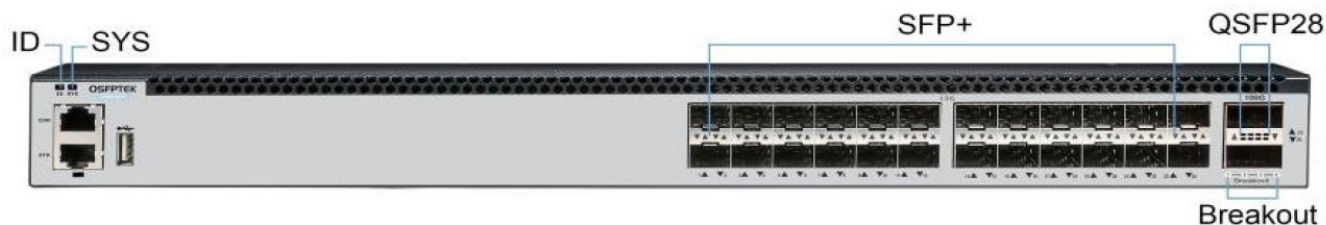
LEDS	Status		Description
ID	Blue	On	ID indication function enable
		Off	ID indication function disable
SYS	Green	On	The system is normal running
	Amber	On	The system occur alarm or error
	–	Off	No power or system is not run or abnormality
ETH	Green	On	Port link.
		Blinking	Port is receiving or transmitting packets.
		Off	Port not link.
SFP+	Green	On	10G port link.

(Port 1-24)		Blinking	10G packets receiving or transmitting.
	Amber	On	1G port link.
		Blinking	1G packets receiving or transmitting.
	–	Off	Port not link
QSFP28 (Port 25-26)	Green	On	100G/40G port link.
		Blinking	100G/40G packets receiving or transmitting.
	Amber	On	100G/40G port link.
		Blinking	100G/40G packets receiving or transmitting.
	–	Off	Port not link

Back Panel

Installation Requirements

Tools Preparation

- Flathead screwdrivers
- Phillips screwdrivers
- ESD-preventive wrist strap

Temperature/Humidity Requirements

Temperature	Humidity
0~45°C	10% 95%

| Substance	Unit	Concentration limit
DUST	Particle/m3	≤ 3 X 104 (No visible dust on the tabletop for three days)
SO2	mg/m3	0.2
H2S	mg/m3	0.006
NH3	mg/m3	0.05
Cl2	mg/m3	0.01
Note: The dust particle size is ≥ 5 μm		

Cleanliness Requirements

Mounting the Switch

Connecting the Power

- Plug the AC power cord to the switch power port on the back rear.
- Connect the other end of the power cord to an AC power source equipment.

Connecting the SFP+ Ports
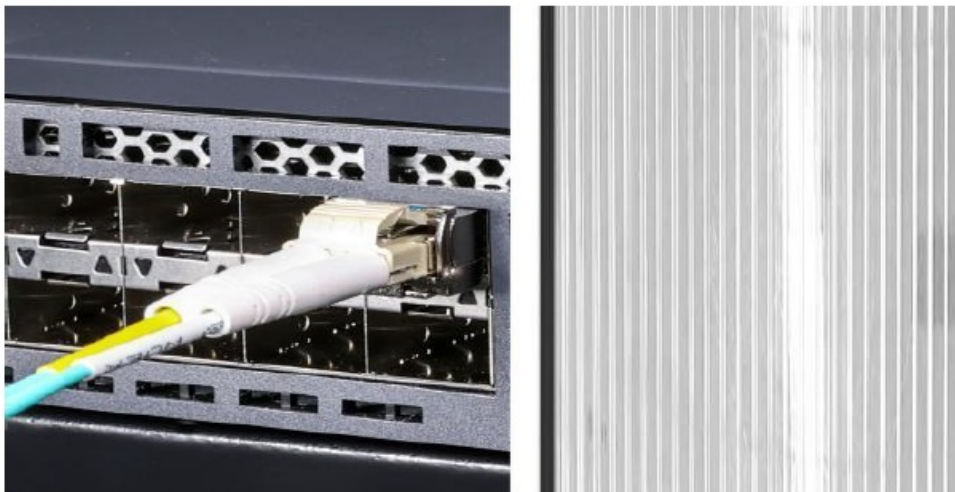
- Insert the SFP+ module into the SFP+ port.
- Plug a fiber patch cable into the SFP+ transceiver.
- Connect the other end of the fiber to the device that you want to realize data communication.

Connecting the QSFP28 Port

- Insert the QSFP28 module into the QSFP28 port.
- Plug a fiber patch cable to the QSFP28 transceiver.
- Connect the other end of the fiber to the device that you want to realize data communication.

Connecting the Management Ports

Connecting the Console Port

- Prepare a console cable.
- Insert the RJ45 connector of the console cable into the console port on the switch.
- Connect the D89 female connector on the other end of the console cable to the serial port on the computer host.

Connecting the ETH Port

- Prepare a standard RJ45 Ethernet patch cable.
- Insert one end of the RJ45 Ethernet patch cable into the computer RJ45 port.
- Connect the RJ45 connector on the other end of the patch cable to the ETH port on the switch.

Connecting the USB Port

- Prepare a Universal Serial Bus (USB) flash disk.
- Insert the USB to the switch USB port.

Configuring the Switch

**Configuring the Switch Using the Web-based Interface**

- Step 1: Connect your computer to the switch using an Ethernet cable and open a web browser.
- Step 2: Set the IP address of the computer to 192.168.1.x (where "x" is any number from 2 to 254) and the subnet mask to 255.255.255.0.
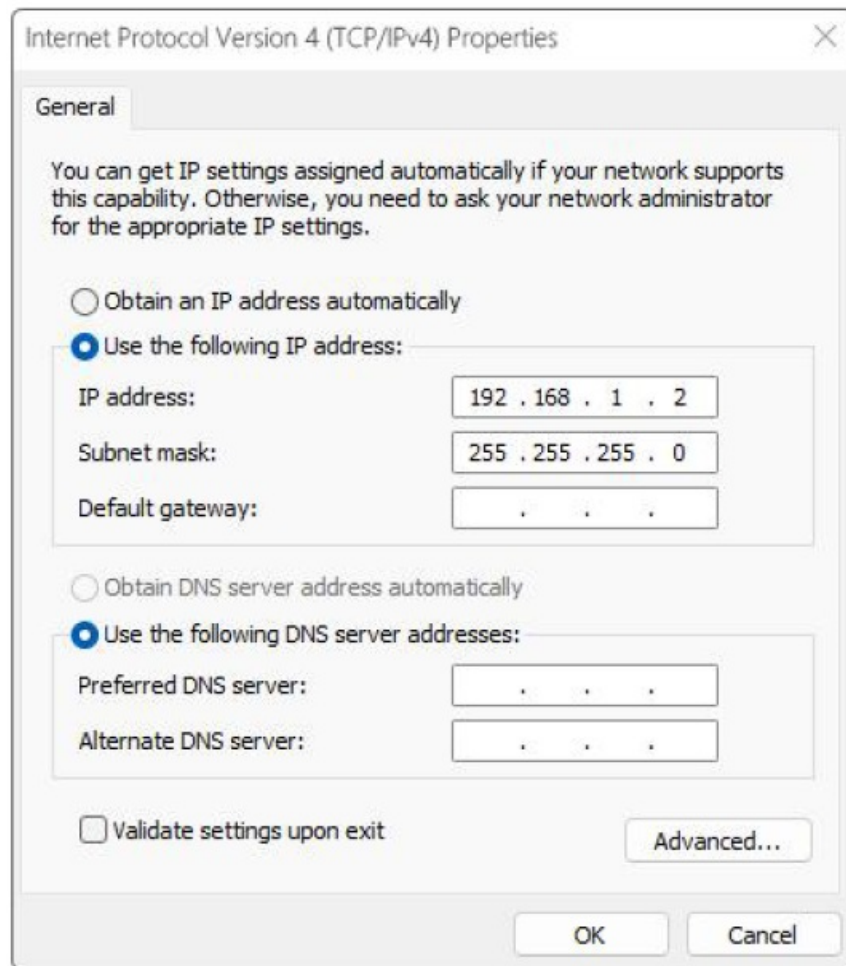
- Step 3: Open a web browser and type http://192.168.1.2 in the address bar. Enter the default username and password (admin/admin).
- Step 4: Click sign-in to access the web-based configuration page.

Configuring the Switch Using the Console Port

- Step 1: Use the console cable to directly connect the switch console port to your computer.
- Step 2: Launch the terminal simulation software such as Hyper Terminal on the computer.
- Step 3: Configure the parameters of the terminal emulation software as follows: 115200 bits per second, 8 data bits, no parity, 1 stop bit, and no flow control.
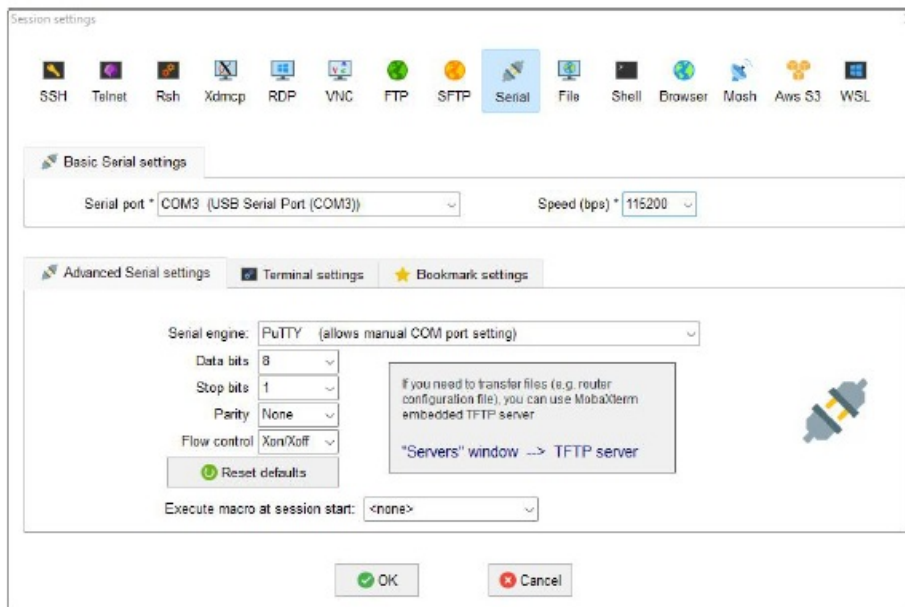
- Step 4: Enter the default username and password (admin/admin).

Troubleshooting

Loading Failure Processing

After loading fails, the system will keep running in the original version. At this time, users should refer to the following steps to re-check:

1. if physical port connections are good first. If some ports are not connected, then re-connect them to ensure that physical connections are correct, and begin re-loading.
2. If physical connections are correct, then check the loading process information displayed on the super terminal to verify if there are input errors. If there are input errors, correct them and re-load. For example, when using TFTP protocol, we enter incorrect IP addresses of the Server and Switch, name of loading software, do not specify the correct working path of the correct TFTP server, and so on.
3. if physical connections are good, and there are no input errors in the loading process but the loading fails finally, please contact agents for help.

User Password Lost
If the system password is lost or forgotten, the following method can be used to reset the password:

1. Enter uBoot operation mode; see Chapter 5 for how to enter;
2. Input the boot_flash_nopass command to start the system in uBoot mode;
   Note: After using the boot_flash_nopass command, the system will clear up the startup-config files; before starting this operation, the startup-config files will be stored in flash:/startup-config.conf.old file.

Power System Troubleshooting
The switch can judge if its power system is faulty according to the PWR indicator on the front panel: when the power system works normally, the PWR indicator shall always keep lighting; when the PWR indicator is off, please check if:

1. The power line of the switch is connected correctly.

2. The EPS of the switch matches the power required by the switch.

Configuration System Troubleshooting

After the switch is powered on, if the system is normal, the startup information will be displayed on the configuration terminal; If no display information on the configuration terminal appears, maybe the configuration system is faulty, please check if:

1. The power is normal.
2. The cable of the configuration port (Console) is properly connected.

   If no problems have been found after the above checks, it is possible that the configuration cable is faulty or the

   parameter setting of the terminal (such as a super terminal) is incorrect, please check accordingly.
3. Troubleshooting for the terminal displaying hashes:

   If the configuration terminal displays hashes, probably the parameter setting of the terminal (such as a super

   terminal) is incorrect Please confirm the parameter setting of the terminal (such as HyperTerminal): baud rate:

   115200, data bit: 8, parity: no, stop bit: 1, flow control: NA, selecting terminal emulation: VT100.

Support and Other Resources

- Contact us **https://www.qsfptek.com/company/contact-us.html**
- Customer Success **https://www.qsfptek.com/resources/customer-success-stories**
- Email **support@qsfptek.com**

Product Warranty

S7600 series switches are backed by a 5-year limited warranty supported by QSFPTEK. You are eligible to apply for a return within 14 days and exchange it within 90 days of receiving it.
For more details about applying qualifications, please live chat or email sales@qsfptek.com for support.

- 5 Year Warranty
- 14-day Return Window

www.qsfptek.com

Documents / Resources

QSFPTEK S7600-24X2C 24 Port 10G Ethernet L3 Plus Switch [pdf] User Guide
S7600-24X2C, S7600-24X2C 24 Port 10G Ethernet L3 Plus Switch, 24 Port 10G Ethernet L3 Plus Switch, 10G Ethernet L3 Plus Switch, L3 Plus Switch, Switch

References

- 🔗 **QSFPTEK - Compatible Optical Transceivers Factory Outlet**
- 🔗 **QSFPTEK - Compatible Optical Transceivers Factory Outlet**
- 🔗 **Title**
- 🔗 **Customer Success Stories - QSFPTEK**
- **User Manual**