QSFPTEK S7600-48X8C L3 Aggregation Switch User Guide

S7600-48X8C Quick Start Guide
Quick Start Guide V2.0

48-Port 10G Ethernet L3+ Switch
48x 10G SFP+ Ports, with 8x 100G QSFP28 Uplinks, Support MLAG, VXLAN
www.qsfptek.com
V2.00

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Introduction

QSFPTEK S7600-48X8C L3+ aggregation switch is designed with 48x 10G SFP+ ports and 8x 100G QSFP28 uplinks. This network switch delivers a 2.56 Tbps switching capacity and 1905 Mpps forwarding rate to meet high-performance aggregation layer requirements. This 10G switch with 2 hot-swap AC power supplies (1+1 redundancy) and 4 hot-swap smart fans, the switch provides hardware redundancy for high 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 48-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

Front Mounting Bracket x2

M4 Screw x8

Rear Mounting Bracket x2

Sliding Rail x2

Hardware Overview

Front Panel Ports

Ports	Description
SFP+	SFP+ ports for 1G/10G connection
QSFP28	QSFP28 ports for 40G/100G connection

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.
		Off	Port not link.
SFP+ (Port 1-48)	Green	On	10G port link.
		Blinking	10G packets receiving or transmitting.
	Amber	On	1G port link.
		Blinking	1G packets receiving or transmitting.
	–	Off	Port not link

QSFP28 (Port 49-56)	Green	On	100G/40G port link.
		Blinking	100G/40G packets receiving or transmitting.
	Amber	On	10G/1G port link.
		Blinking	10G/1G packets receiving or transmitting.
	–	Off	Port not link
Breakout	Loop Blinking		One or more 100G/40G ports are breakout
	Off		None of the 100G/40G port is breakout

Back Panel

Ports	Description
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

Installation Requirements

Tools Preparation

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

Temperature/Humidity Requirements

Temperature	Humidity
0~45°C	10% 95%

Cleanliness Requirements

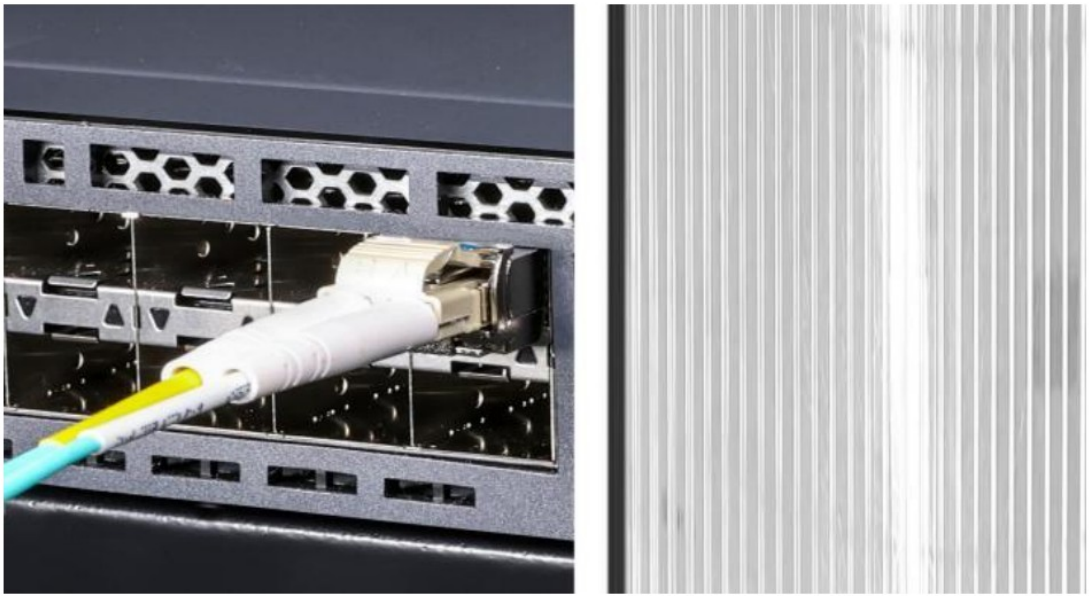
Substance	Unit	Concentration limit
DUST	Particle/m3	≤ 3 X 104 (No visible dust on the tabletop for three days)
SO2	mg/m3	0.2
H2S	mg/m3	0.006
NH3	mg/m3	0.05
Cl2	mg/m3	0.01
Note: The dust particle size is ≥ 5 μm		

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

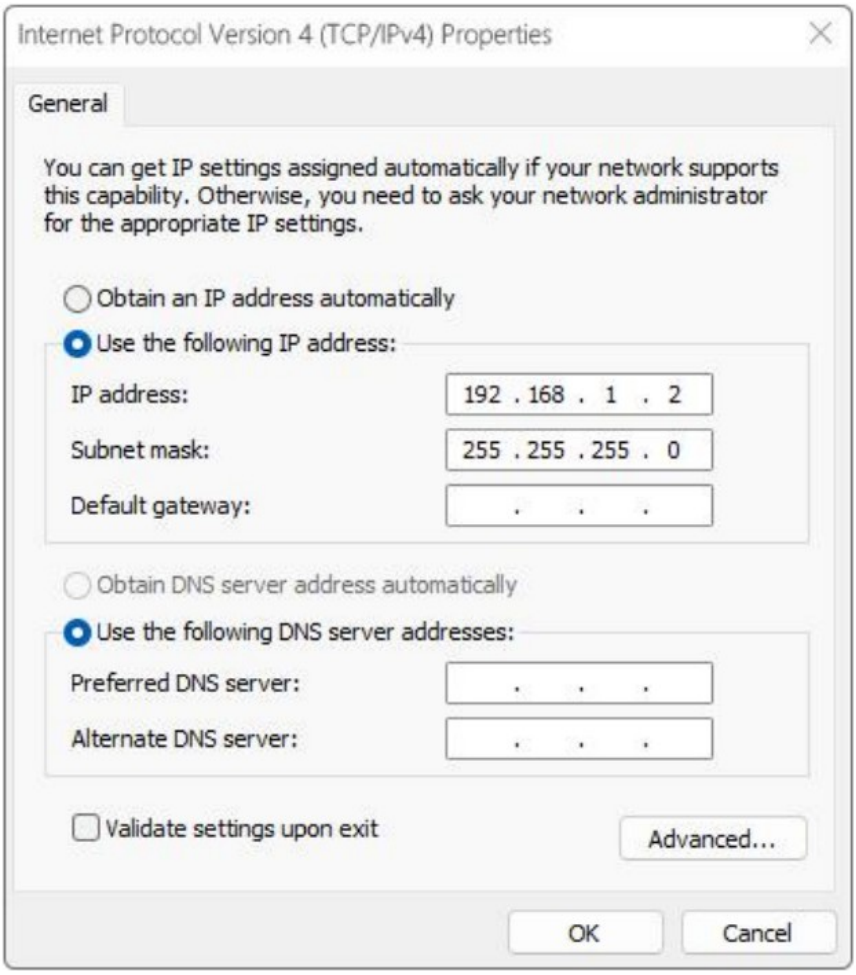
- Prepare a standard RJ45 Ethernet patch cable.
- Insert one end of the RJ45 Ethernet patch cable into the computer RJ45 port.
- Connect the RJ45 connector on the other end of the patch cable to the ETH port on the switch.

Connecting the USB Port

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

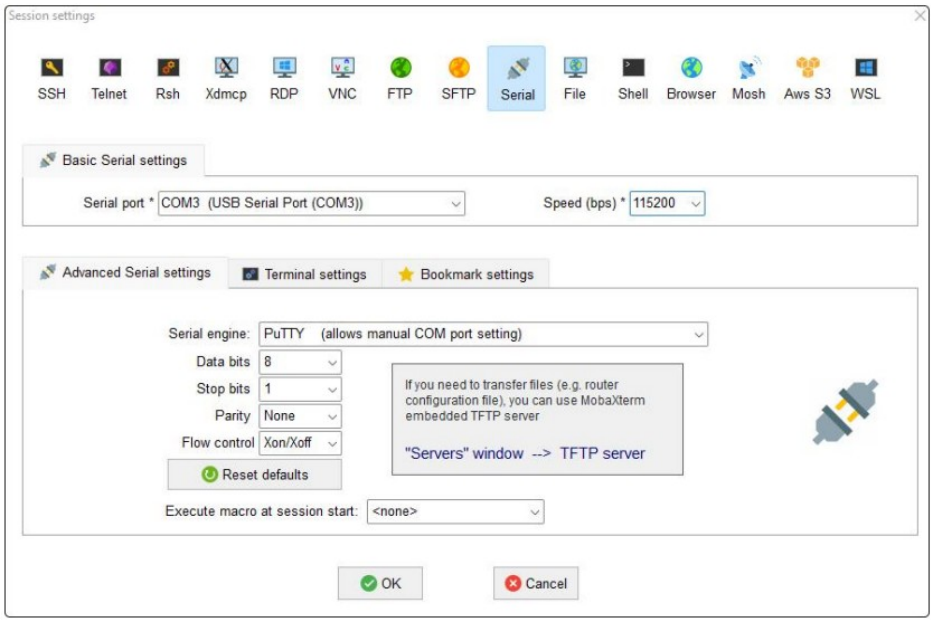
Configuring the Switch

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 within 90 days of receiving them.
For more details about applying qualifications, please live chat or email sales@qsfptek.com for support.

5 Year Warranty

14-day Return Window

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Documents / Resources

	QSFPTEK S7600-48X8C L3 Aggregation Switch [pdf] User Guide S7600-48X8C L3 Aggregation Switch, S7600-48X8C, L3 Aggregation Switch, Aggregation Switch, Switch

References

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