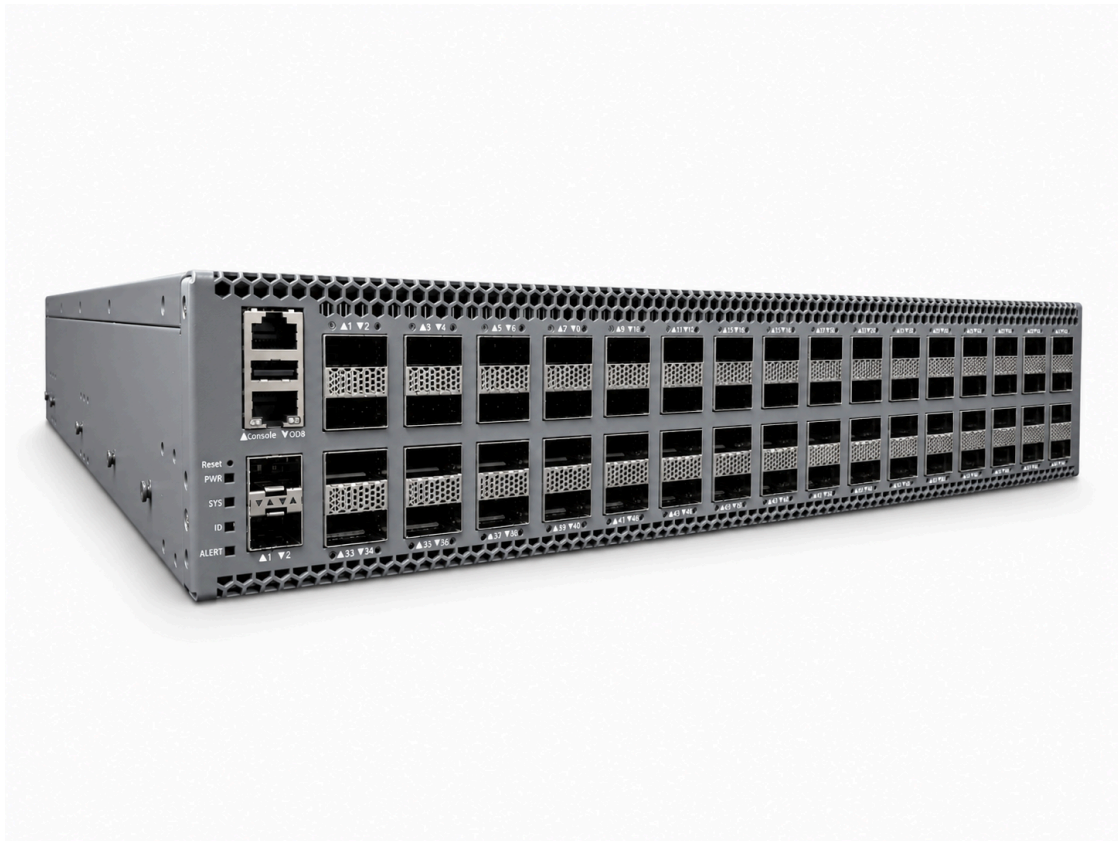




Full 400G Data Center Switch

S6700-64CQ



Installation manual introduction

The Product installation manual mainly describes S6700-64CQ switch hardware features, installation methods, and precautions during the installation.

This manual includes the following chapters:

Chapter 1: Product Introduction. Briefly describes the basic features of the switch and the appearance details.

Chapter 2: Product Installation. Guide the switch hardware installation methods and precautions.

Chapter 3: Hardware Connections. Guide the connection between switches and other devices and precautions.

Chapter 4: Technical Specifications.



NOTE: To avoid potential device damage and personal injury, read the related information in this manual before installing the device.

Agreement

The term "switch" mentioned in this manual, unless otherwise specified, refers to 100 Gigabit managed switch, hereinafter referred to as S6700-64CQ. Some pictures for the schematic, the product itself and pictures may be different.



This icon indicates the items to be cautioned in the operation. If the operation is wrong, the equipment may be damaged and other adverse consequences.

Chapter 1 Product Introduction

1.1 Product introduction

S6700-64CQ is a new generation Full 400G Ethernet switch designed for enterprise data center and campus LAN networks, providing high-throughput, high-density 400GE interfaces, larger buffer and lower latency. The S6700-64CQ adopts advanced hardware architecture with 64*400GE ports. S6700-64CQ provide rich data center service features and management capability.

It realize large buffer of the interfaces, meeting the burst flow forwarding without packet loss; provide the M-LAG technology for virtualization scenarios; provide the modular power and fan design for high reliability. The key components adopt "overvoltage" designs to ensure that the product has the strong ability of continuous operation.

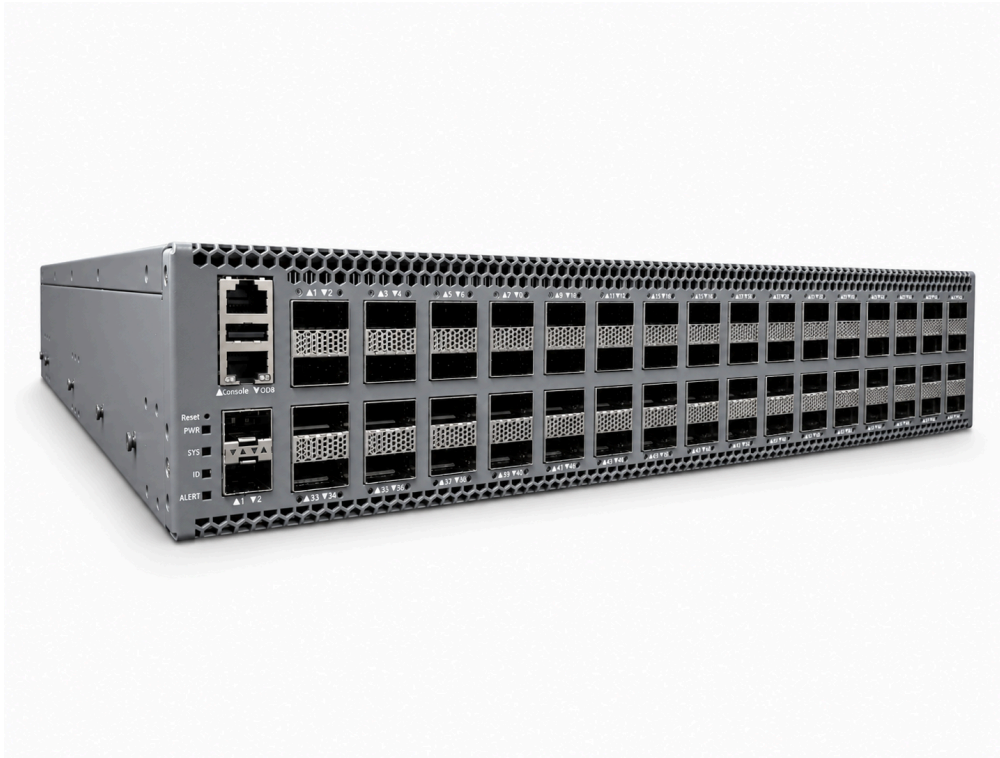
It can work with S6700-64CQ ToR switches to build a complete, scalable, virtualized fabric network that meets the data center requirements. Meanwhile, S6700-64CQ can also be deployed as aggregation or core switches for enterprise campus LAN networks.

1.2 Packing list

No.	Name	Count	Remark
1	Switch	1	-
2	Quick Installation Guide	1	-
3	Power module	1/2	Depending on configuration demands
4	Power cable	1/2	Depending on configuration demands
5	Serial cable	1	-
6	Ground cable	1	-
7	Accessory kit	1	-
8	Warranty Card	1	-
9	Qualification Card	1	-

- Appearance
- Front Panel

Including indicators, RST key, USB port, SFP port, as shown below:



Chapter 2 Installation

2.1 Installation Precautions



Note: To avoid improper use of equipment damage and personal injury, please observe the following precautions.

- Before installation, take ESD protection measures such as wearing an ESD wrist strap or ESD gloves.
- This equipment is not suitable for use in locations where children are likely to be present.
- Keep a switch away from water or moisture.
- Keep a switch working in a clean environment. Otherwise, excessive dust will cause electrostatic adsorption that may impair the service life of a switch and lead to communication failure.
- To ensure normal air cooling, check that fan units are installed in place before power-on and working as expected after power-on.
- Do not leave fan unit slots vacant.
- Do not place other objects on top of a switch.
- Make sure a switch is working at its nominal voltage.
- To prevent electric shock, do not open the enclosure of an operating switch. Do not open the enclosure of a powered-off switch unless necessary.
- Insert a power module into its slot in a correct direction as instructed. Insertion in a wrong direction will cause power-on failure.
- Do not install different types of pluggable power modules on one switch.
- Install filler panels in vacant power module slots.
- Power off a switch before cleaning. Never clean it with a wet cloth or liquid.

Installing the Switch in a Cabinet

• Step 1

Select slide rails and determine the mounting position of fixing plates according to the spacing between vertical mounting flanges of a cabinet. Install the front mounting ears and fixing plates on the switch and secure them with M3 screws.



Note: The mounting position of fixing plates and the type of applicable slide rails vary with the spacing between vertical mounting flanges in a cabinet.

Position1Position1Position2Position2

Vertical Mounting Flanges Spaced	Fixing Plates Mounted	Applicable Slide Rails
350–510 mm (Incl. 510 mm)	At position 1	Short (270 mm)
510–585 mm (Incl. 585 mm)	At position 2	Short (270 mm)
585–850 mm (Incl. 850 mm)	At position 2	Long (540 mm)



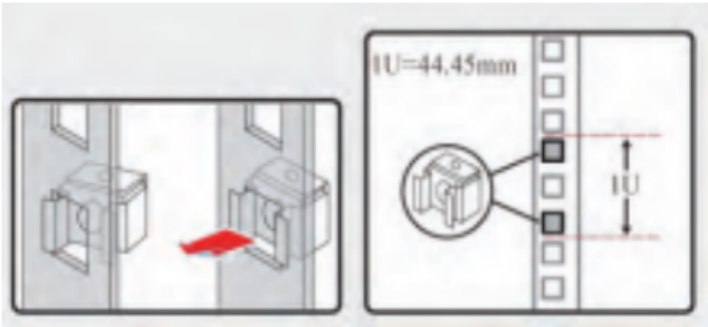
Note: In a cabinet with a tray, a switch can be easily installed as follows:

Place the switch on the tray, slide it in place and secure its mounting ears onto vertical mounting flanges.



• Step 2

Determine the position where the switch will be installed on the front and rear vertical mounting flanges, and install floating nuts there.



• Step 3

Align the mounting holes on the left and right slide rails with the floating nuts on rear vertical mounting flanges and secure the slide rails on vertical mounting flanges with M6 screws.



- Step 4

Align the switch with the slide rails and push it in slowly so that the slide rails fit snugly into the grooves of fixing plates. Push the switch in place and secure its front mounting ears on vertical mounting flanges with M6 screws.

M6 ScrewsM6 ScrewsM6 ScrewsM6 Screws

Installing Power Modules

- Step 1

Install power modules as needed.



Connecting the Ground Cable

- Step1

Remove the screw from the earth ground pole of the switch.



- Step 2

Connect one end of the ground cable to the earth ground pole on the switch, and the other end to the rear vertical mounting flange of the cabinet.



Connecting the Power Cable

Warning: To prevent injuries, never connect power cables while they are electrified. Never power on a switch before installation and cabling are completed. Make sure the ground cable of a switch is grounded reliably.

Warning: To prevent injuries, never connect power cables while they are electrified. Never power on a switch before installation and cabling are completed. Make sure the ground cable of a switch is grounded reliably.

- Step 1

Plug the power cable into the power module of the switch.



Chapter3 Hardware connection

3.1 SFP Port connection

S6700-64CQ SFP port support 100G/400G fiber module. Recommended use of standard SFP module products.

The process of installing a fiber module on a switch is as follows:

First, grasp the optic fiber module from the side, insert it smoothly along the SFP port slot until the optic fiber module and switch are in close contact;

Second, confirm the Rx and Tx ports of the fiber module when connecting, insert one end of the fiber into the Rx and Tx ports correspondingly, ensure that the Tx and Rx ends of the interface are connected correctly and the other end of the fiber is connected to another device;

Third, please check the corresponding indicator light status after power on. If the light blinking that the link is properly connected, if the light is off, the link is failure, please check the line to confirm that the corresponding equipment is enabled.



Note: Does not allow excessive bending fiber, the radius of curvature should not be less than 10cm;

Ensure the cleanliness of the fiber surface;

Please do not look directly into the optical fiber connector with your eyes as this may cause eye injury.

3.2 Check before power on

Check whether the outlet power supply meets the switch specifications;

Check the power, switches, racks and other equipment have been properly grounded;

Check whether the switch and other network devices are connected properly.

Chapter 4 Hardware Specifications

Port	64 *400G QSFP-DD fiber ports
	2 * 10G SFP+ ports
	1 Console port,1 OOB Management port,1USB port

Redundant Design	• Support 2 pluggable power, 1 + 1 backup mode • Support 4 pluggable fans
LEDs	66 Link/Act LEDs
	1 Power indicator,1 SYS indicator
Performance	Forwarding mode: store and forward
	Switch Volume (Full-duplex): 51.2Tbps
	Packet forwarding rate: 38Bpps
	SSD: 128G
	RAM: 16G
	Port buffer: 128M
Input	DC: -40V~-57V, rated voltage -48V AC: 100V~240V, rated voltage 110V/220V High voltage DC: 190-400V, rated voltage 240V/336V
	Redundant plugable power supply
Dimension	(L*W*H) 440×674×87mm

Chapter 5 Software Specifications

Software Specifications(SONIC):	
Port	Support FEC Support Speed-400G Support MTU - 9212 Support Auto-neg
L2 Switching	Support Layer 2 VLAN Support FDB MAC Learn/Age Support Static LAG Support LACP: IEEE 802.3ad Support LAG Hash Support Storm Control Support LLDP Support RSTP Support RPVST Support MSTP Support BPDU Guard Support Root Guard Support Loop Guard Support BPDU Filter

L3 and Routing	- Support Routed Port - Support Routed PortChannel - Support SVI - Support ARP - Support Sub-interface - Support ECMP,WCMP - Support NAT - Support IPV6 Neighbor Discovery - Support IPv6 Route Advertisement - Support BGP unnumbered - Support Border Gateway Protocol - Support (BGP) for IPv4 Border Gateway Protocol (BGP) for IPv6 - Support BFD - Support DHCP Relay - Support Static Routes - Support OSPF v2 - Support OSPF v3 - Support VRF
Management	- Support ZTP - Support SNMPv2 - Support SNMPv3 - Support ISCLI (ONES FMCLI) - Support Feature / Functionality - Support SSH - Support NTP - Support Management VRF - Support SYSLOG - Support DHCP Client (MGMT) - Support ACLS - Support Sflow - Support Telemetry (ONES Agent) - Support ERSPAN - Support AAA and TACACS+ - Support Radius - Support ACLs for IPV4 - Support ACLs for IPV6 - Support Management ACL - Support CoPP - Support Monitor link - Support IP SLA

Traffic	Support CoPP Support ECN Support QOS Support WRED Support DCBX Support ETS Support 802.1p mapping Support DSCP mapping Support Drop Counters Support Port Counters Support PFC Support PFC WatchDog Support On-click RoCE Support Policy Routing
DCI	Support L2 VXLAN Support BGP EVPN (Type 2,3,5) Support L3 VXLAN