RAISECOM

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ISCOM2600G (A) Series
Product Description
(Rel_08)

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Notice

Preface

Objectives

This document describes the 1000 Mbit/s Ethernet ISCOM2600G series switches (hereinafter referred to as the ISCOM2600G series switch) in terms of product overview, networking applications, system structure, device installation, and technical specifications.

The appendix describes cables and SFP modules, and lists terms, acronyms, and abbreviations involved in this document.

Versions

The following table lists the product versions related to this document.

Product name	Hardware version	Software version
ISCOM2608G-2GE	A	V3.50
ISCOM2608G-2GE-PWR	A	V3.50
ISCOM2624G-4GE	A	V3.50
ISCOM2624G-4GE-PWR	A	V3.50
ISCOM2624G-4GE-RPS	A	V3.50
ISCOM2624G-4C	A	V3.50
ISCOM2624G-4C-PWR	A	V3.50
ISCOM2648G-4GE	A	V3.50
ISCOM2648G-4GE-RPS	A	V3.50
ISCOM2648G-4C	A	V3.50

Conventions

Symbol conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
⚡Warning	Indicate a hazard with a medium or low level of risk which, if not avoided, could result in minor or moderate injury.
⚠Caution	Indicate a potentially hazardous situation that, if not avoided, could cause equipment damage, data loss, and performance degradation, or unexpected results.
✎Note	Provide additional information to emphasize or supplement important points of the main text.
🔍Tip	Indicate a tip that may help you solve a problem or save time.

General conventions

Convention	Description
Times New Roman	Normal paragraphs are in Times New Roman.
Arial	Paragraphs in Warning, Caution, Notes, and Tip are in Arial.
Boldface	Buttons and navigation path are in **Boldface**.
Italic	Book titles are in *italics*.
Lucida Console	Terminal display is in Lucida Console.
Book Antiqua	Heading 1, Heading 2, Heading 3, and Block are in Book Antiqua.

Change history

Updates between document versions are cumulative. Therefore, the latest document version contains all updates made to previous versions.

Issue 08 (2018-05-14)

Eighth commercial release

- Added the ISCOM2624G-4C-PWR.

Issue 07 (2017-06-30)

Seventh commercial release

- Added the ISCOM2648G-4C-AC_DC.

Issue 06 (2016-11-15)

Sixth commercial release

- Added the ISCOM2624G-4GE-RPS and ISCOM2648G-4GE-RPS.

Issue 05 (2016-05-15)

Fifth commercial release

- Added the ISCOM2608G-2GE-PWR and ISCOM2624G-4GE-PWR.

Issue 04 (2016-04-28)

Fourth commercial release

- Added the ISCOM2648G-4GE and ISCOM2608G-2GE.
- Fixed known bugs.

Issue 03 (2015-11-30)

Third commercial release
- Upgraded the software version to V3.10.
- Updated some features.

Issue 02 (2015-11-05)

Second commercial release
- Added the ISCOM2624G-4C and ISCOM2648G-4C.

Issue 01 (2015-08-15)

Initial commercial release

Contents

Figures

Tables

1 Overview

This chapter is an overview of the ISCOM2600G series switch, including the following sections:

- Introduction
- Features
- Ordering information

1.1 Introduction

The Raisecom-developed 1000 Mbit/s Ethernet ISCOM2600G series switch, which meets the requirements of all-1000 Mbit/s access, is designed for the access layer and can be used as an aggregation device for enterprises.

1.2 Features

Table 1-1 lists features of the ISCOM2600G series switch.

Table 1-1 Features

Feature	Description
Basic features	• Accessing the device (Console/Telnet/SSHv2) • Managing users • CLI • Managing files (BootROM/system files/configuration files) • Load and upgrade (TFTP auto-loading, upgrade through BootROM, FTP, or TFTP) • Time management • Interface management • Basic information (device name, language mode, saving/deleting configurations, and restarting the device) • Task scheduling • Watchdog

Feature	Description
Ethernet	• MAC management and port security MAC • VLAN (4094 VLANs) • Private VLAN • VLAN IP interface • QinQ • 1:1 VLAN mapping • Loopback detection • Interface protection • Port mirroring • Interface isolation • STP/MSTP/MRSTP • Transparent transmission of L2CP • Voice VLAN
IP services	• ARP • Static route • NDP • DHCP Client • DHCP Server • DHCP Relay • DHCP Snooping • DHCP Option 82/DHCP Option 61/IPv6 DHCP Option 18
Zero-configuration	Support IPv6 zero configuration.
PoE (supported by PoE devices only)	• IEEE 802.3af and IEEE 802.3at • Common PoE configurations • PD Active check • PoE scheduling
QoS	• Trust priority • Traffic classification (IP priority, DSCP priority, and CoS priority) and traffic policy (rate limiting based on traffic policy, re-direction, and re-marking) • Priority mapping and queue scheduling • Interface-based and VLAN-based rate limiting • SRED • Traffic statistics
Multicast	• Static Layer 2 multicast • IGMP Snooping • IGMP MVR • IGMP filtering • MLD • IGMP querier • Multicast VLAN copy

Feature	Description
Security	• Port security MAC • ACL • Dynamic ARP detection • RADIUS authentication • TACACS+ • 802.1X • PPPoE+ • Storm control • IP Source Guard • CPU protection • ARP anti-attack
Reliability	• Link aggregation • MLacp • Interface backup • G.8032
OAM	IEEE 802.3ah
System management	• SNMP • KeepAlive • RMON • LLDP • DDM • System log • Alarm management • Fan monitoring • Hardware monitoring • CPU monitoring • Dual-system • Loopback • Ping and Traceroute • Performance statistics

1.3 Ordering information

1.3.1 Naming convention

Figure 1-1 shows the naming convention for the ISCOM2600G series switch.

Figure 1-1 Naming convention
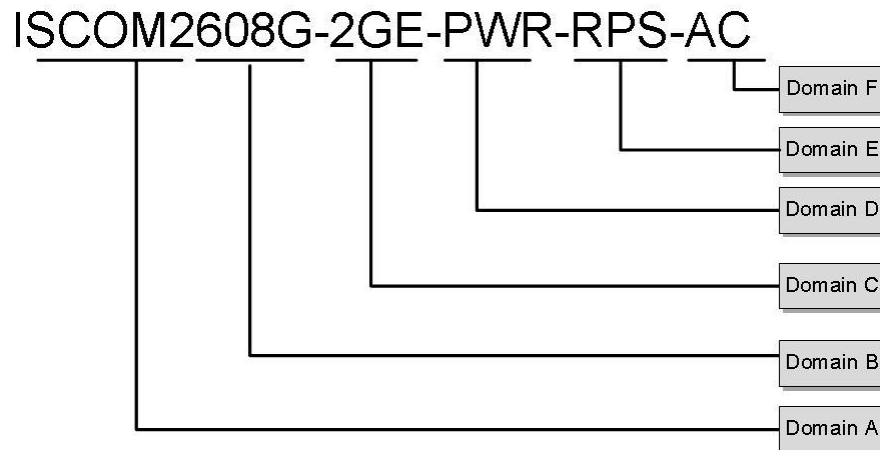
Table 1-2 describes naming convention for the ISCOM2600G series switch.

Table 1-2 Naming convention

Domain	Indication	Value	Description
A	Product ID	ISCOM	Raisecom ISCOM series device
B	Subtype and number of interfaces	26	One of the 2600 series
		8/24/48	• 8: provide 8 downlink interfaces. • 24: provide 24 downlink interfaces. • 48: provide 48 downlink interfaces.
C	Number and parameters of uplink interfaces	2/4	• 2: provide 2 uplink interfaces. • 4: provide 4 uplink interfaces.
		C	Provide the 10 Gbit/s uplink interfaces.
		GE	Provide the 1000 Mbit/s Combo uplink interface.
D	PoE	PWR	Support PoE.
		−	Do not support PoE.
E	RPS redundant powers	RPS	Support RPS power.
		−	Do not support RPS power
F	Power type	AC	Support AC power supply.
		DC	Support DC power supply.
		AC/S	Support single AC power supply.
		DC/S	Support single DC power supply.
		AC/D	Support dual AC power supplies.
		DC/D	Support dual DC power supplies.
		AC_DC	Support one AC + one DC power supplies.

1.3.2 Ordering information about device

Table 1-3 lists ordering information about the ISCOM2600G series switch.

Table 1-3 Ordering information about device

Model	Description
ISCOM2608G-2GE-AC	• Support eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support two 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply.
ISCOM2608G-2GE-DC	• Support eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support two 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply.
ISCOM2608G-2GE-PWR-AC	• Support eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support two 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply. The 8 downlink interfaces have the following features: • Support PoE for supplying power to the remote PD. • Support IEEE802.3af and IEEE802.3at. • Support non-standard PDs. • Support a maximum output power of 30 W per interface. • Support a total power supply of up to 124 W through 8 interfaces (each interface provides 15.4 W) or 4 interfaces (each interface provides 30 W).
ISCOM2608G-2GE-PWR-DC	• Support eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support two 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply. The 8 downlink interfaces have the following features: • Support PoE for supplying power to the remote PD. • Support IEEE802.3af and IEEE802.3at. • Support non-standard PDs. • Support a maximum output power of 30 W per interface. • Support a total power supply of up to 124 W through 8 interfaces (each interface provides 15.4 W) or 4 interfaces (each interface provides 30 W).
ISCOM2624G-4GE-AC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply.

Model	Description
ISCOM2624G-4GE-DC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply.
ISCOM2624G-4GE-PWR-AC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply. The 24 downlink interfaces have the following features: • Support PoE for supplying power to the remote PD. • Support IEEE802.3af and IEEE802.3at. • Support non-standard PDs. • Support a maximum output power of 30 W per interface. • Support a total power supply of up to 370 W through 24 interfaces (each interface provides 15.4 W) or 12 interfaces (each interface provides 30 W).
ISCOM2624G-4GE-PWR-DC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply. The 24 downlink interfaces have the following features: • Support PoE for supplying power to the remote PD. • Support IEEE802.3af and IEEE802.3at. • Support non-standard PDs. • Support a maximum output power of 30 W per interface. • Support a total power supply of up to 370 W through 24 interfaces (each interface provides 15.4 W) or 12 interfaces (each interface provides 30 W).
ISCOM2624G-4GE-RPS-AC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply. Provide a 12 V RPS power interface, which can access an additionally-purchased RPS power supply for backup.
ISCOM2624G-4C-AC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply.
ISCOM2624G-4C-DC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply.

Model	Description
ISCOM2624G-4C-PWR-AC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply. The 24 downlink interfaces have the following features: • Support PoE for supplying power to the remote PD. • Support IEEE802.3af and IEEE802.3at. • Support non-standard PDs. • Support a maximum output power of 30 W per interface. • Support a total power supply of up to 370 W through 24 interfaces (each interface provides 15.4 W) or 12 interfaces (each interface provides 30 W).
ISCOM2624G-4C-PWR-DC	• Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply. The 24 downlink interfaces have the following features: • Support PoE for supplying power to the remote PD. • Support IEEE802.3af and IEEE802.3at. • Support non-standard PDs. • Support a maximum output power of 30 W per interface. • Support a total power supply of up to 370 W through 24 interfaces (each interface provides 15.4 W) or 12 interfaces (each interface provides 30 W).
ISCOM2648G-4GE-AC	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply.
ISCOM2648G-4GE-DC	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support -48 VDC power supply.
ISCOM2648G-4GE-RPS-AC	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 1000 Mbit/s Combo interfaces (SFP 100/1000Base-X interface and RJ45 10/100/1000Base-T interface, which cannot be enabled concurrently). • Support the SNMP interface for out-of-band network management. • Support 220 VAC power supply. Provide a 12 V RPS power interface, which can access an additionally-purchased RPS power supply for backup.
ISCOM2648G-4C-AC/S	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support single 220 VAC power supply.

Model	Description
ISCOM2648G-4C-DC/S	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support single -48 VDC power supply.
ISCOM2648G-4C-AC/D	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support dual 220 VAC power supplies.
ISCOM2648G-4C-DC/D	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support dual -48 VDC power supplies.
ISCOM2648G-4C-AC_DC	• Support forty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. • Support four 10 Gbit/s SFP+ uplink interfaces (it also supports 1000 Mbit/s SFP modules). • Support the SNMP interface for out-of-band network management. • Support one 220 VAC power supply and one -48 VDC power supply.

Note

- The Combo interface refers to the two Ethernet interfaces (one is an optical interface while the other is an electrical interface) on the panel. You can choose one as required. The two interfaces cannot work concurrently. When one interface is activated, the other interface will be disabled automatically.
- The ISCOM2608G-2GE-PWR (R.10) adopts a fanless design.

1.3.3 Ordering information about auxiliary parts

The following auxiliary parts are not delivered by default. You can purchase them as required.

RPS power supply

Table 1-4 lists ordering information about RPS power supply.

Table 1-4 Ordering information about RPS power supply

Power model	Input voltage	Electrical parameter
RPD0401-48S12	40–72 VDC	• Output voltage: 12 VDC • Output power: 40 W
RPA0401-220S12	100–240 VDC	• Output voltage: 12 VDC • Output power: 40 W

Installing accessories

Table 1-5 lists ordering information about the accessories.

Table 1-5 Ordering information about accessories

ERP code	Name	Quantity
20.08.03.0042.01	RC953-4FE4E1T1 series corner (customized for the 19" rack)	2
20.08.03.0047.01	ISCOM5104 (B) corner (customized for the 19" rack)	2
20.04.00.0007.02	M3*8-flat head screw-chrome	4
20.04.00.0043.02	M6*16-pan head screw-chrome	4
20.04.10.0006.02	M6-cage nut-nickel	4

Table 1-6 lists ordering information about wall-mount accessories.

Table 1-6 Ordering information about wall-mount accessories

ERP code	Component name	Quantity
20.08.03.0048.01	ISCOM5104(B) wall-mount plate	2
20.04.00.0004.02	M3*6-flat head screw-chrome	4

100 Mbit/s SFP optical module

Table 1-7 lists ordering information about the 100 Mbit/s SFP optical module.

Table 1-7 Ordering information about 100 Mbit/s SFP optical module

Model	Description
USFP-03/M-D-R/SW	• Transmission rate: 155 Mbit/s • Target transmission distance: 2 km • Tx wavelength: 1310 nm • Dual-fiber MM SFP optical module • DDM • RoHS-compliant
USFP-03/S1-D-R/SW	• Transmission rate: 155 Mbit/s • Target transmission distance: 15 km • Tx wavelength: 1310 nm • Dual-fiber SM SFP optical module • DDM • RoHS-compliant

Model	Description
USFP-03/S2-D-R/SW	• Transmission rate: 155 Mbit/s • Target transmission distance: 40 km • Tx wavelength: 1310 nm • Dual-fiber SM SFP optical module • DDM • RoHS-compliant
USFP-03/S3-D-R/SW	• Transmission rate: 155 Mbit/s • Target transmission distance: 80 km • Tx wavelength: 1550 nm • Dual-fiber SM SFP optical module • DDM • RoHS-compliant

100 Mbit/s SFP electrical module

Table 1-8 lists ordering information about the 100 Mbit/s SFP electrical module.

Table 1-8 Ordering information about 100 Mbit/s SFP electrical module

Model	Description
USFP-FE/AN-R/SW	• 10/100BASE-T auto-negotiation • Target transmission distance: 100 m • Enabled with auto-negotiation • SerDes interface

1000 Mbit/s SFP optical module

Table 1-9 lists ordering information about the 1000 Mbit/s SFP optical module.

Table 1-9 Ordering information about 1000 Mbit/s SFP optical module

Model	Description
USFP-Gb/M-D-R/SW	• Transmission rate: 1.25 Gbit/s • Target transmission distance: 550 m • Tx wavelength: 850 nm • Dual-fiber MM SFP optical module • DDM • RoHS-compliant
USFP-Gb/S1-D-R/SW	• Transmission rate: 1.25 Gbit/s • Target transmission distance: 15 km • Tx wavelength: 1310 nm • Dual-fiber SM SFP optical module • DDM • RoHS-compliant

Model	Description
USFP-Gb/S2-D-R/SW	• Transmission rate: 1.25 Gbit/s • Target transmission distance: 40 km • Tx wavelength: 1550 nm • Dual-fiber SM SFP optical module • DDM • RoHS-compliant
USFP-Gb/S3-D-R/SW	• Transmission rate: 1.25 Gbit/s • Target transmission distance: 80 km • Tx wavelength: 1550 nm • Dual-fiber SM SFP optical module • DDM • RoHS-compliant
USFP-Gb/EX-D-R/SW	• Transmission rate: 1.25 Gbit/s • Target transmission distance: 80 km • Tx wavelength: 1550 nm • Dual-fiber SM SFP optical module • RoHS-compliant • DDM • RoHS-compliant

1000 Mbit/s SFP electrical module

Table 1-10 lists ordering information about the 1000 Mbit/s SFP electrical module.

Table 1-10 Ordering information about 1000 Mbit/s SFP electrical module

Model	Description
USFP-GE-R/SW	• Transmission rate: 1000 Mbit/s • Target transmission distance: 100 m • SerDes interface
USFP-GE/AN-R/SW	• Transmission rate: 10/100/1000 Mbit/s • Target transmission distance: 100 m • SGMll interface

10 Gbit/s SFP+ optical module

Table 1-11 lists ordering information about the 10 Gbit/s SFP+ optical module.

Table 1-11 Ordering information about 10 Gbit/s SFP+ optical module

Model	Description
USFP+-192/M/SW	• Transmission rate: 10 Gbit/s • Target transmission distance: 300 m • Tx wavelength: 850 nm • Dual-fiber MM SFP+ optical module • DDM • RoHS-compliant

Model	Description
USFP+-192/S1/SW	• Transmission rate: 10 Gbit/s • Target transmission distance: 10 km • Tx wavelength: 1310 nm • Dual-fiber SM SFP+ optical module • DDM • RoHS-compliant
USFP+-192/S2/SW	• SFP+ optical module • Transmission rate: 10 Gbit/s • Target transmission distance: 40 km • Tx wavelength: 1550 nm • DDM • RoHS-compliant
USFP+-192/S3/SW	• SFP+ optical module • Transmission rate: 10 Gbit/s • Target transmission distance: 80 km • Tx wavelength: 1550 nm • DDM • RoHS-compliant

2 Networking applications

This chapter describes typical networking applications of the ISCOM2600G series switch, including the following sections:

- Enterprise park network access
- Residential area broadband access

2.1 Enterprise park network access

As shown in Figure 2-1, in the enterprise park network access networking, the ISCOM2600G series switch, as an access device, is connected downstream to data devices from enterprises, campuses, and residential areas and upstream to a Layer 3 aggregation device, accessing and transmitting broadband, voice, wireless, and video services. This networking can meet the customer's high-bandwidth and multi-service access requirements.

Figure 2-1 Enterprise park network access networking
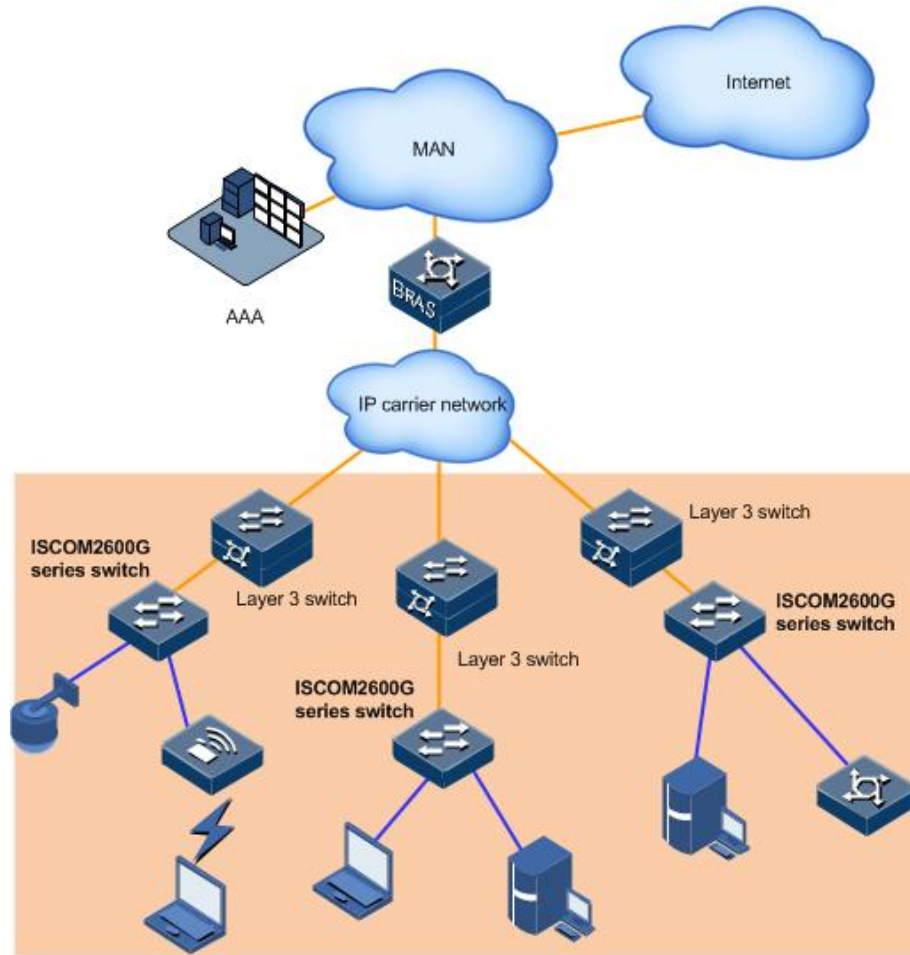
2.2 Residential area broadband access

As an access switch, the ISCOM2600G series switch can work as a core switch for a small network. As shown in Figure 2-2, the ISCOM2600G series switch is connected to the L3 aggregation switch through the 10GE interface and downstream to the 1000 Mbit/s switch through the GE interface.

Figure 2-2 Residential area broadband access networking
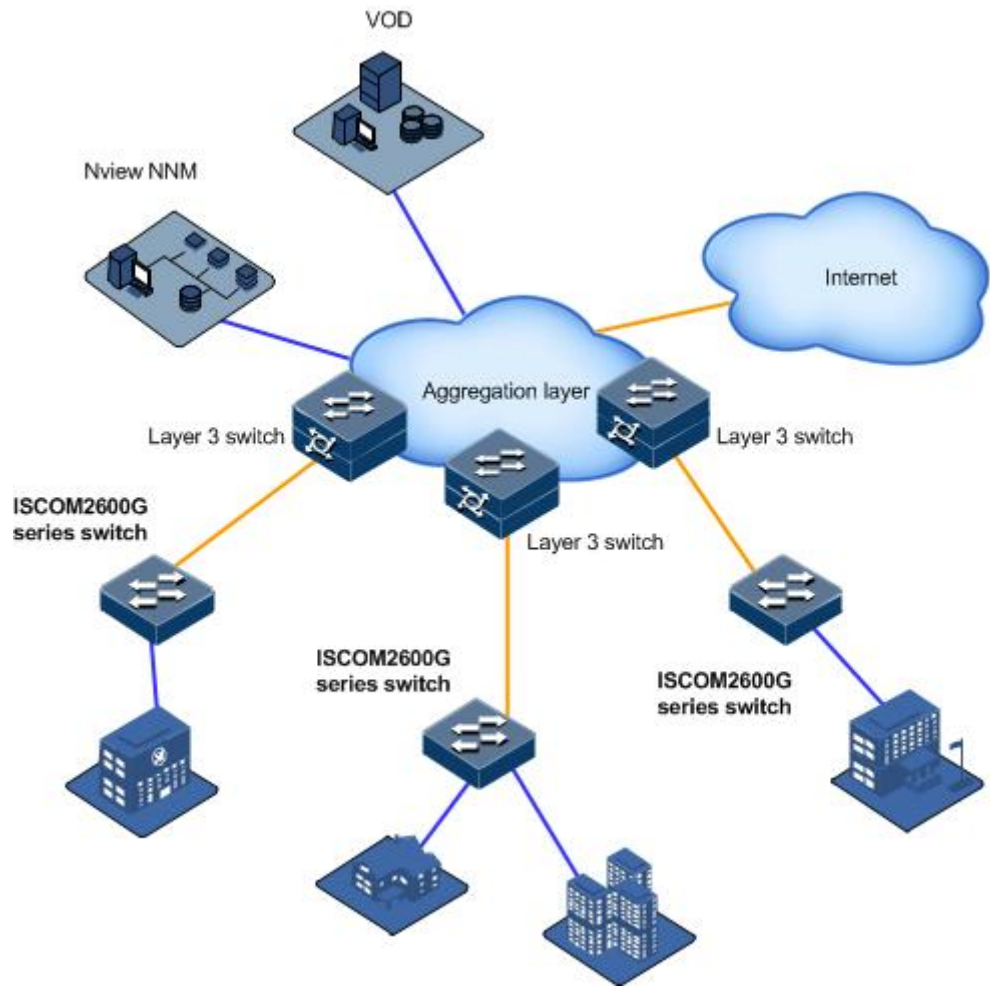
3 System structure

This chapter describes system structure of the ISCOM2600G series switch, including the following sections:

- Panels
- Interfaces
- Power interfaces
- LEDs

3.1 Panels

Note

Definition of the power supply is listed below:
- AC: single AC power supply
- DC: single DC power supply
- AC/DC: single power supply, single AC/DC
- AC/DC/S: single power supply, single AC/DC
- AC/DC/D: dual power supplies, dual AC/DC
- AC_DC: dual power supplies, one AC + one DC

3.1.1 Front panels

ISCOM2608G-2GE-AC

Figure 3-1 shows the front panel of the ISCOM2608G-2GE-AC.

Figure 3-1 Front panel of ISCOM2608G-2GE-AC
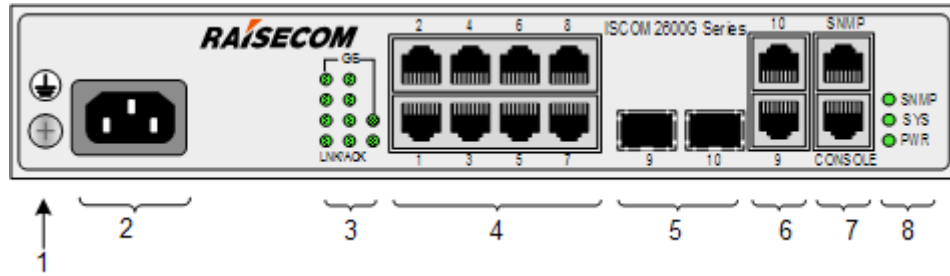
1	Ground terminal	2	Power interface
3	Service interfaces (1–8) LEDs	4	Service downlink interfaces (1–8)
5	Service uplink SFP optical interfaces (9–10)	6	Service uplink GE interfaces (9–10)
7	SNMP interface and Console interface	8	PWR, SYS, and SNMP LEDs

ISCOM2608G-2GE-DC

Figure 3-2 shows the front panel of the ISCOM2608G-2GE-DC.

Figure 3-2 Front panel of ISCOM2608G-2GE-DC
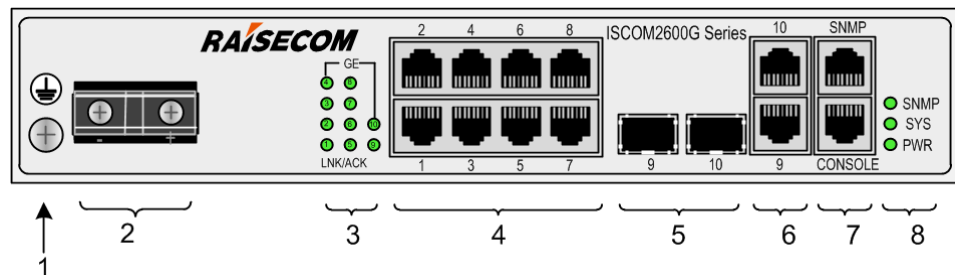
1	Ground terminal	2	Power connector
3	Service interfaces (1–8) LEDs	4	Service downlink interfaces (1–8)
5	Service uplink SFP optical interfaces (9–10)	6	Service uplink GE interfaces (9–10)
7	SNMP interface and Console interface	8	PWR, SYS, and SNMP LEDs

ISCOM2608G-2GE-PWR-AC

Figure 3-3 shows the front panel of the ISCOM2608G-2GE-PWR-AC.

Figure 3-3 Front panel of ISCOM2608G-2GE-PWR-AC
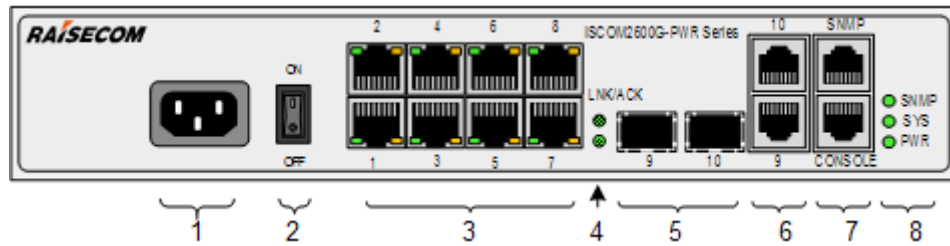
1	Power interface	2	Power switch
3	Service interfaces (1–8) and LEDs	4	Uplink interface LEDs
5	Service uplink SFP optical interfaces (9–10)	6	Service uplink GE interfaces (9–10)
7	SNMP interface and Console interface	8	PWR, SYS, and SNMP LEDs

ISCOM2608G-2GE-PWR-DC

Figure 3-4 shows the front panel of the ISCOM2608G-2GE-PWR-DC.

Figure 3-4 Front panel of ISCOM2608G-2GE-PWR-DC
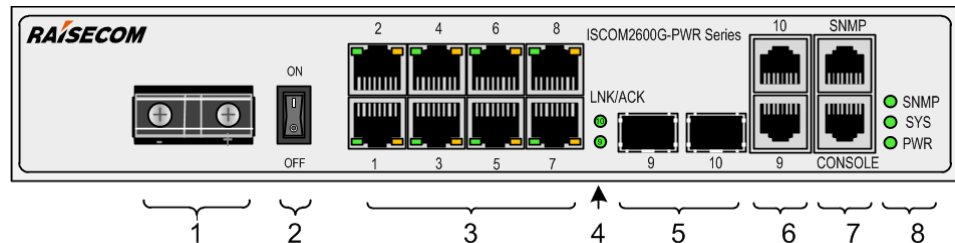
1	Power interface	2	Power switch
3	Service interfaces (1–8) and LEDs	4	Uplink interface LEDs
5	Service uplink SFP optical interfaces (9–10)	6	Service uplink GE interfaces (9–10)
7	SNMP interface and Console interface	8	PWR, SYS, and SNMP LEDs

ISCOM2624G-4C-PWR-AC/DC

Figure 3-5 shows the front panel of the ISCOM2624G-4C-PWR-AC/DC.

Figure 3-5 Front panel of ISCOM2624G-4C-PWR-AC/DC
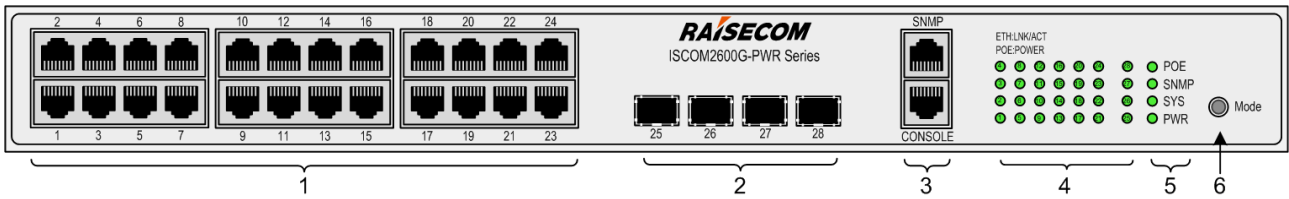
1	Service downlink interfaces (1–24)	2	Service uplink SFP optical interfaces (25–28)
3	SNMP interface and Console interface	4	Interface LEDs
5	POE, SNMP, SYS, and PWR LEDs	6	Mode button (PoE mode switching)

ISCOM2624G-4GE-AC

Figure 3-6 shows the front panel of the ISCOM2624G-4GE-AC.

Figure 3-6 Front panel of ISCOM2624G-4GE-AC
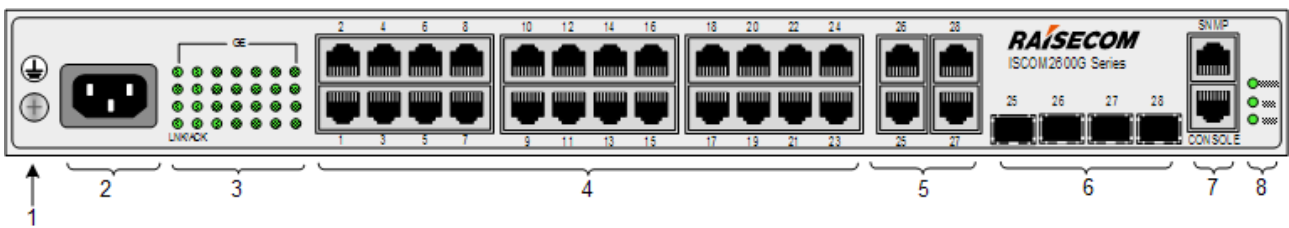
1	Ground terminal	2	Power interface
3	Service interfaces (1–28) LEDs	4	Service downlink interfaces (1–24)
5	Service uplink GE interfaces (25–28)	6	Service uplink SFP optical interfaces (25–28)
7	SNMP interface and Console interface	8	PWR, SYS, and SNMP LEDs

ISCOM2624G-4GE-DC

Figure 3-7 shows the front panel of the ISCOM2624G-4GE-DC.

Figure 3-7 Front panel of ISCOM2624G-4GE-DC
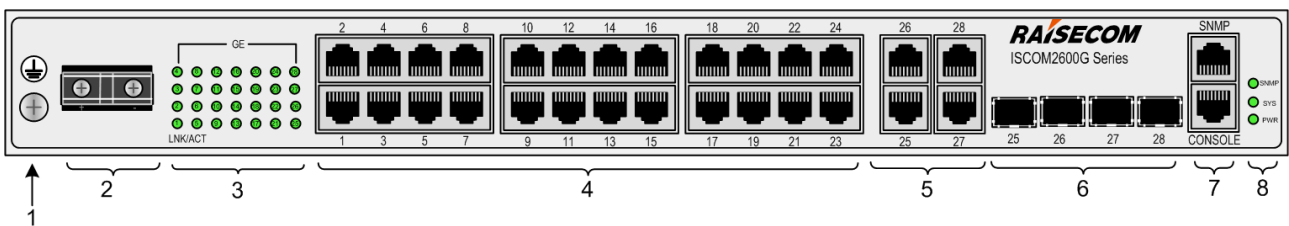
1	Ground terminal	2	Power interface
3	Service interfaces (1–28) LEDs	4	Service downlink interfaces (1–24)
5	Service uplink GE interfaces (25–28)	6	Service uplink SFP optical interfaces (25–28)
7	SNMP interface and Console interface	8	PWR, SYS, and SNMP LEDs

ISCOM2624G-4GE-PWR-AC/DC

Figure 3-8 shows the front panel of the ISCOM2624G-4GE-PWR-AC/DC.

Figure 3-8 Front panel of ISCOM2624G-4GE-PWR-AC/DC

1	Service downlink interfaces (1–24)	2	Service uplink GE interfaces (25–28)
3	Service uplink SFP optical interfaces (25–28)	4	SNMP interface and Console interface
5	Interface LEDs	6	POE, PWR, SYS, and SNMP LEDs
7	Mode button		

ISCOM2624G-4GE-RPS-AC

Figure 3-9 shows the front panel of the ISCOM2624G-4GE-RPS-AC.

Figure 3-9 Front panel of the ISCOM2624G-4GE-RPS-AC

1	Ground terminal	2	Power interface
3	Service interfaces (1–28) LEDs	4	Service downlink interfaces (1–24)
5	Service uplink GE interfaces (25–28)	6	Service uplink SFP optical interfaces (25–28)

| 7 | SNMP interface and Console interface | 8 | RPS, PWR, SYS, and SNMP LEDs |

ISCOM2624G-4C-AC

Figure 3-10 shows the front panel of the ISCOM2624G-4C-AC.

Figure 3-10 Front panel of the ISCOM2624G-4C-AC
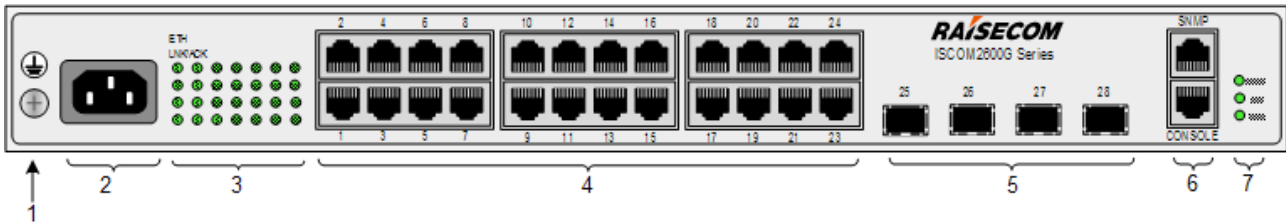
1	Ground terminal	2	Power interface
3	Service interfaces (1–28) LEDs	4	Service downlink interfaces (1–24)
5	Service uplink interfaces (25–28)	6	SNMP interface and Console interface
7	PWR, SYS, and SNMP LEDs		

ISCOM2624G-4C-DC

Figure 3-11 shows the front panel of the ISCOM2624G-4C-DC.

Figure 3-11 Front panel of the ISCOM2624G-4C-DC
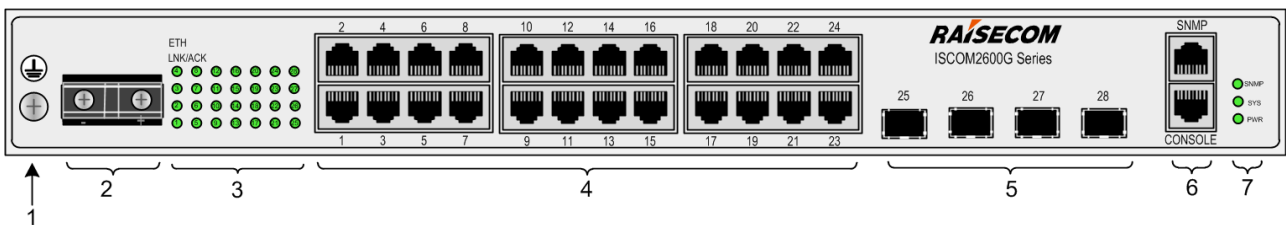
1	Ground terminal	2	Power interface
3	Service interfaces (1–28) LEDs	4	Service downlink interfaces (1–24)
5	Service uplink interfaces (25–28)	6	SNMP interface and Console interface
7	PWR, SYS, and SNMP LEDs		

ISCOM2648G-4GE-AC/DC

Figure 3-12 shows the front panel of the ISCOM2648G-4GE-AC/DC.

Figure 3-12 Front panel of the ISCOM2648G-4GE-AC/DC
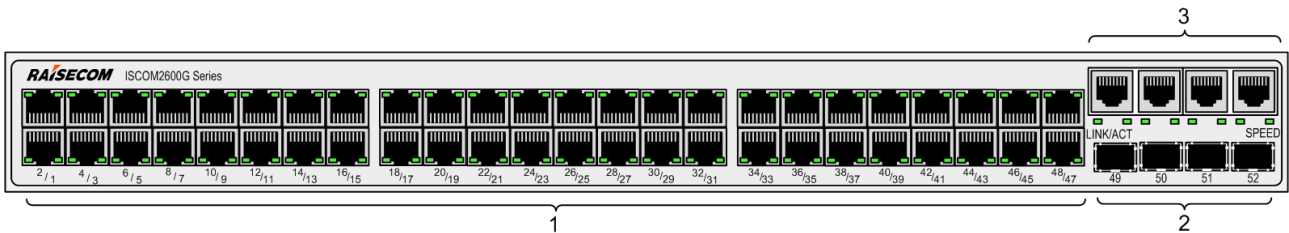
1	Service downlink interfaces (1–48) and LEDs	2	Service uplink SFP optical interfaces (49–52)
3	Service uplink GE interfaces (49–52) and LEDs		

ISCOM2648G-4GE-RPS-AC

Figure 3-13 shows the front panel of the ISCOM2648G-4GE-RPS-AC.

Figure 3-13 Front panel of the ISCOM2648G-4GE-RPS-AC
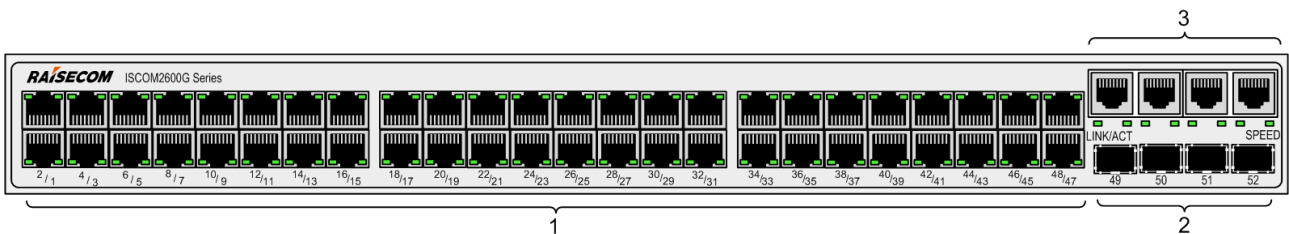
1	Service downlink interfaces (1–48) and LEDs	2	Service uplink SFP optical interfaces (49–52)
3	Service uplink GE interfaces (49–52) and LEDs		

ISCOM2648G-4C-AC/DC/S

Figure 3-14 shows the front panel of the ISCOM2648G-4C-AC/DC/S.

Figure 3-14 Front panel of the ISCOM2648G-4C-AC/DC/S
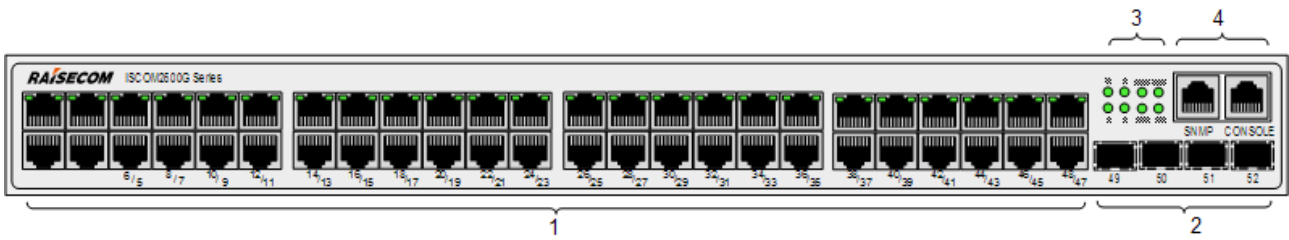
1	Service downlink interfaces (1–48) and LEDs	2	Service uplink SFP optical interfaces (49–52)
3	Uplink interfaces, SNMP interface, SYS, and PWR1/PWR2	4	SNMP interface and Console interface

ISCOM2648G-4C-AC/DC/D

Figure 3-15 shows the front panel of the ISCOM2648G-4C-AC/DC/D.

Figure 3-15 Front panel of the ISCOM2648G-4C-AC/DC/D
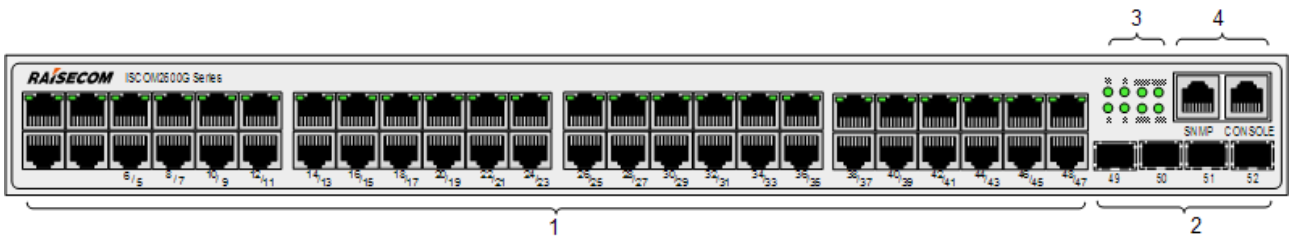
1	Service downlink interfaces (1–48) and LEDs	2	Service uplink SFP optical interfaces (49–52)
3	Uplink interfaces, SNMP interface, SYS, and PWR1/PWR2	4	SNMP interface and Console interface

ISCOM2648G-4C-AC_DC

Figure 3-16 shows the front panel of the ISCOM2648G-4C-AC_DC.

Figure 3-16 Front panel of the ISCOM2648G-4C-AC_DC
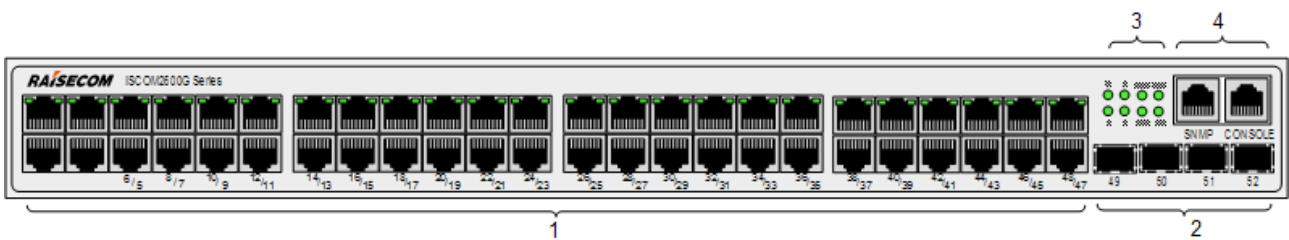
1	Service downlink interfaces (1–48) and LEDs	2	Service uplink SFP optical interfaces (49–52)
3	Uplink interfaces, SNMP interface, SYS, and PWR1/PWR2	4	SNMP interface and Console interface

3.1.2 Rear panels

ISCOM2608G-2GE-AC/DC

Figure 3-17 shows the rear panel of the ISCOM2608G-2GE-AC/DC.

Figure 3-17 Rear panel of ISCOM2608G-2GE-AC/DC
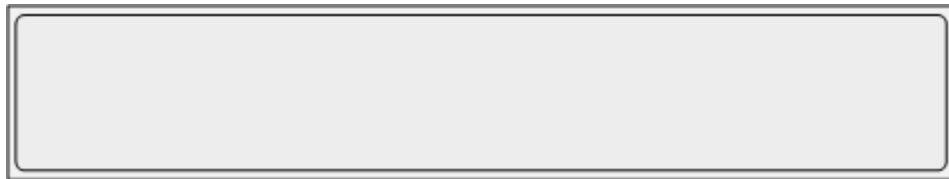
ISCOM2608G-2GE-PWR-AC/DC

Figure 3-18 shows the rear panel of the ISCOM2608G-2GE-PWR-AC/DC.

Figure 3-18 Rear panel of ISCOM2608G-2GE-PWR-AC/DC
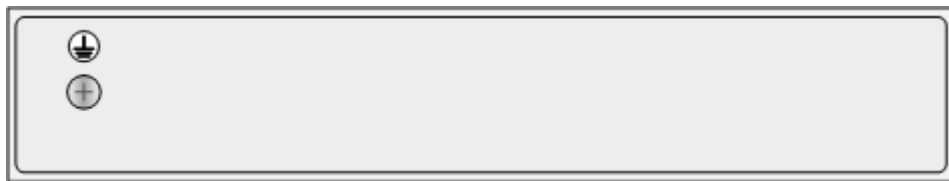
ISCOM2624G-4C-PWR-AC

Figure 3-19 shows the rear panel of the ISCOM2624G-4C-PWR-AC.

Figure 3-19 Rear panel of ISCOM2624G-4C-PWR-AC

1	Ground terminal	2	Power switch
3	Power interface		

ISCOM2624G-4C-PWR-DC

Take the AC model for example. Figure 3-20 shows the rear panel of the ISCOM2624G-4C-PWR-DC.

Figure 3-20 Rear panel of ISCOM2624G-4C-PWR-DC

1	Ground terminal	2	Power switch
3	Power interface		

ISCOM2624G-4GE-AC/DC

Figure 3-18 shows the rear panel of the ISCOM2624G-4GE-AC/DC.

Figure 3-21 Rear panel of ISCOM2624G-4GE-AC/DC

ISCOM2624G-4GE-PWR-AC

Figure 3-19 shows the rear panel of the ISCOM2624G-4GE-PWR-AC.

Figure 3-22 Rear panel of ISCOM2624G-4GE-PWR-AC

1	Ground terminal	2	Power switch
3	Power interface		

ISCOM2624G-4GE-PWR-DC

Figure 3-20 shows the rear panel of the ISCOM2624G-4GE-PWR-DC.

Figure 3-23 Rear panel of ISCOM2624G-4GE-PWR-DC

1	Ground terminal	2	Power switch
3	Power interface		
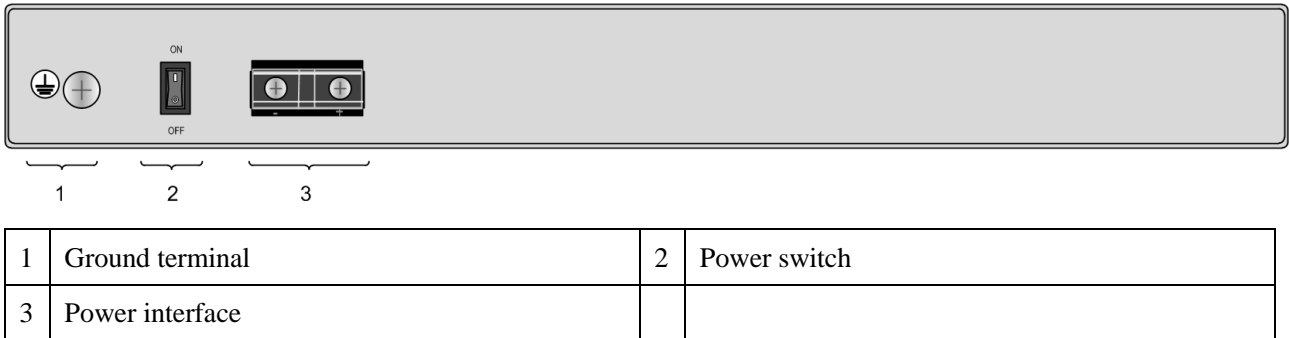
ISCOM2624G-4GE-RPS-AC

Figure 3-24 shows the rear panel of the ISCOM2624G-4GE-RPS-AC.

Figure 3-24 Rear panel of ISCOM2624G-4GE-RPS-AC

1	RPS power interface		
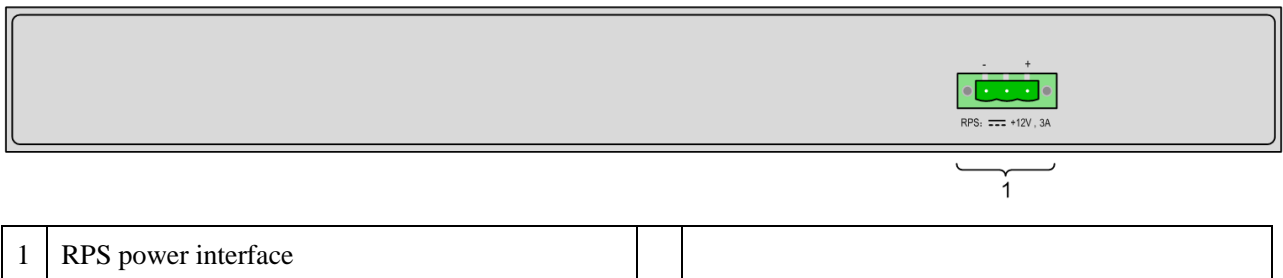
ISCOM2624G-4C-AC/DC

Figure 3-25 shows the rear panel of the ISCOM2624G-4C-AC/DC.

Figure 3-25 Rear panel of ISCOM2624G-4C-AC/DC

ISCOM2648G-4GE-AC

Figure 3-25 shows the rear panel of the ISCOM2648G-4GE-AC.

Figure 3-26 Rear panel of ISCOM2648G-4GE-AC

1	Power interface	2	Ground terminal
3	SNMP interface and Console interface	4	SNMP, SYS, and PWR LEDs
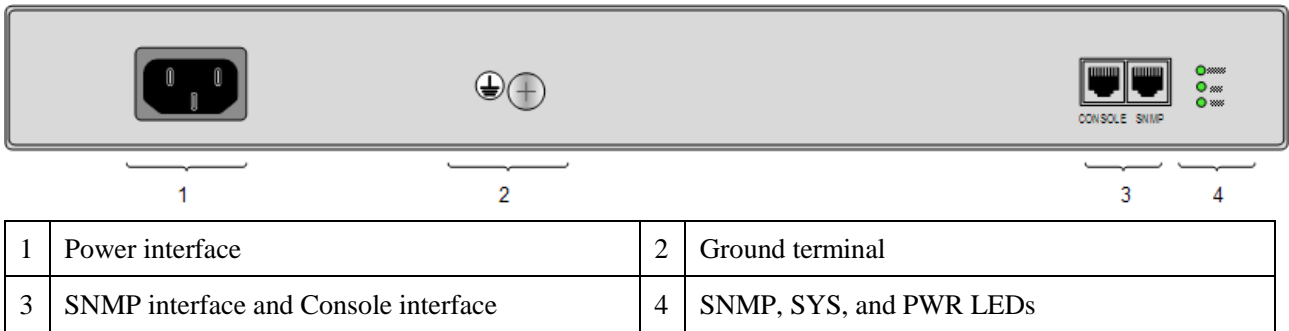
ISCOM2648G-4GE-DC

Figure 3-27 shows the rear panel of the ISCOM2648G-4GE-DC.

Figure 3-27 Rear panel of ISCOM2648G-4GE-DC

1	Power interface	2	Ground terminal
3	SNMP interface and Console interface	4	SNMP, SYS, and PWR LEDs
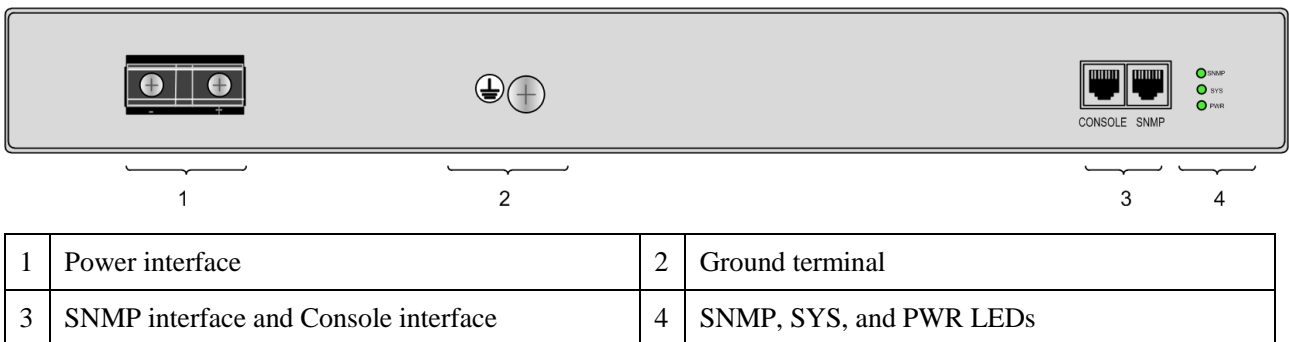
ISCOM2648G-4GE-RPS-AC

Figure 3-28 shows the rear panel of the ISCOM2648G-4GE-RPS-AC.

Figure 3-28 Rear panel of the ISCOM2648G-4GE-RPS-AC

1	Power interface	2	Ground terminal
3	RPS power interface	4	RPS and PWR LEDs
5	SNMP interface and Console interface	6	SNMP and SYS LEDs
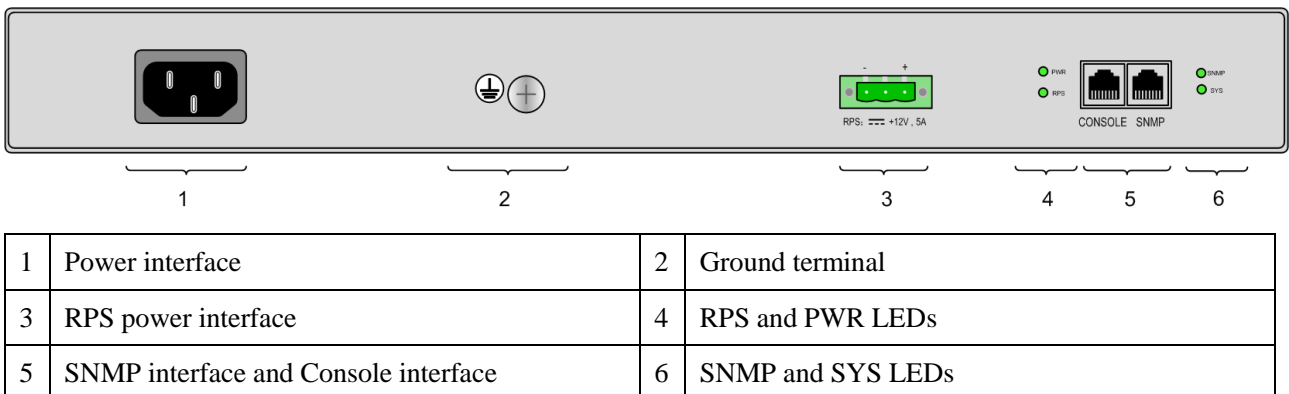
ISCOM2648G-4C-AC/S

Figure 3-29 shows the rear panel of the ISCOM2648G-4C-AC/S.

Figure 3-29 Rear panel of the ISCOM2648G-4C-AC/S

1	Ground terminal	2	Power interface
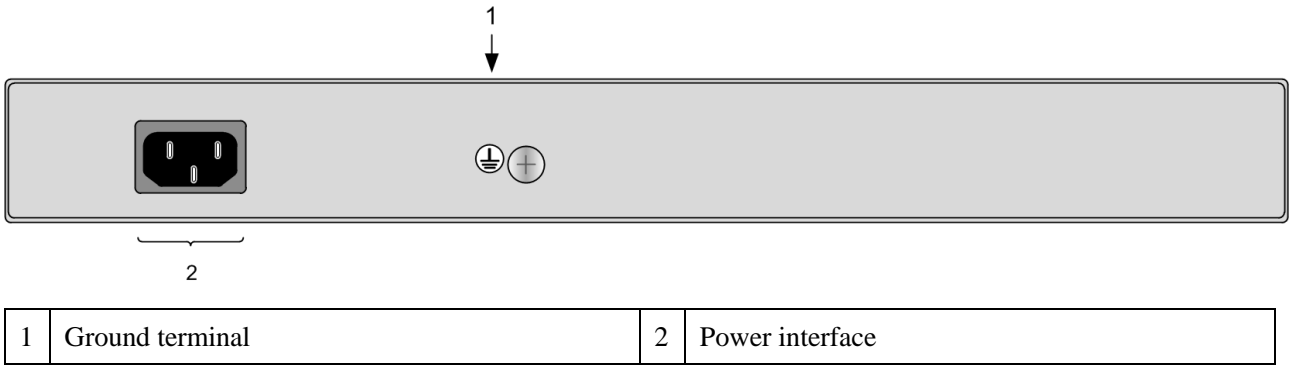
ISCOM2648G-4C-DC/S

Figure 3-30 shows the rear panel of the ISCOM2648G-4C-DC/S.

Figure 3-30 Rear panel of the ISCOM2648G-4C-DC/S

1	Ground terminal	2	Power interface
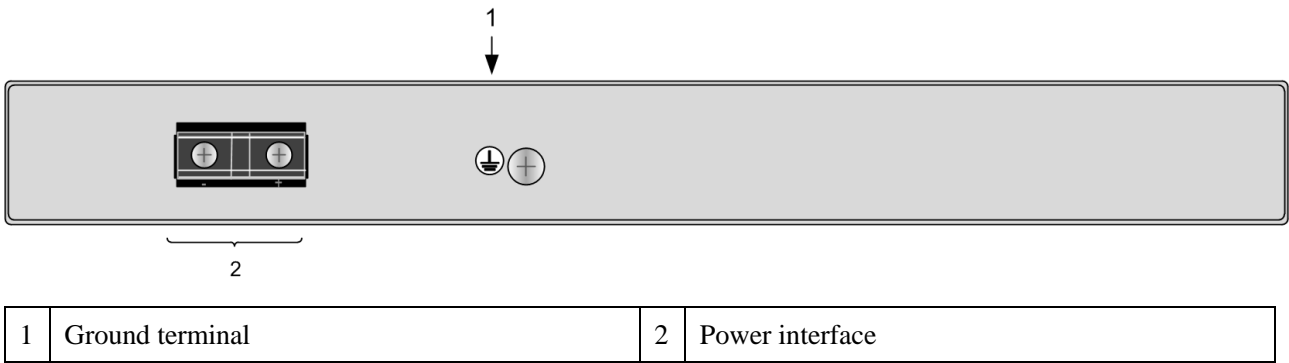
ISCOM2648G-4C-AC/D

Figure 3-31 shows the rear panel of the ISCOM2648G-4C-AC/D.

Figure 3-31 Rear panel of the ISCOM2648G-4C-AC/D
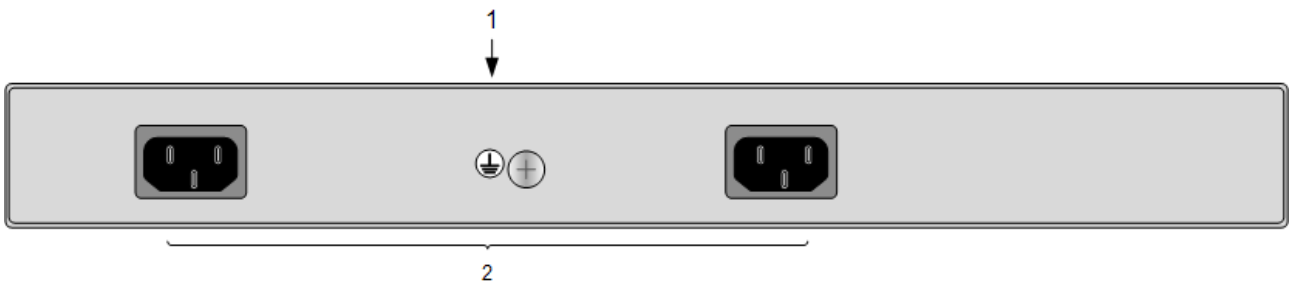
1	Ground terminal	2	Power interface

ISCOM2648G-4C-DC/D

Figure 3-32 shows the rear panel of the ISCOM2648G-4C-DC/D.

Figure 3-32 Rear panel of the ISCOM2648G-4C-DC/D
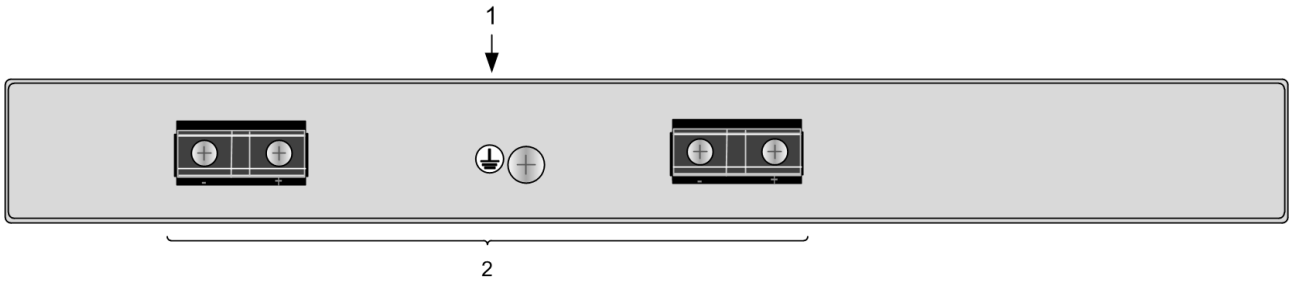
1	Ground terminal	2	Power interface

ISCOM2648G-4C-AC_DC

Figure 3-33 shows the rear panel of the ISCOM2648G-4C-AC_DC.

Figure 3-33 Rear panel of the ISCOM2648G-4C-AC_DC
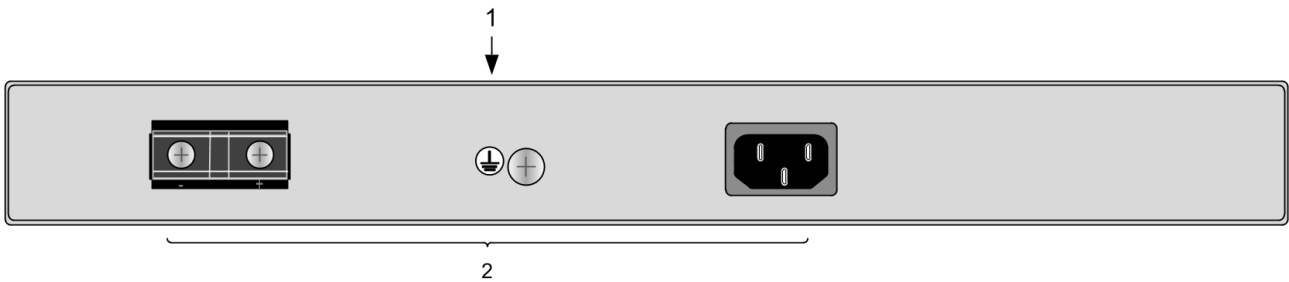
1	Ground terminal	2	Power interface

3.2 Interfaces

The ISCOM2600G series switch provides external interfaces, such as service interfaces, management interfaces, and power interfaces.

3.2.1 Service interfaces

Table 3-1 lists service interfaces on the ISCOM2600G series switch.

Table 3-1 Service interfaces

	Interface	Quantity	Description
Uplink interfaces	ISCOM2608G-2GE	2	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.
	ISCOM2608G-2GE-PWR	2	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.
	ISCOM2624G-4GE	4	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.
	ISCOM2624G-4GE-PWR	4	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.

Interface	Quantity	Description
ISCOM2624G-4GE-RPS	4	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.
ISCOM2624G-4C	4	The interface supports the following optical modules: • For 10 Gbit/s SFP+ optical interfaces, the available SFP+ optical module is 10GBASE-X. • For 1000 Mbit/s SFP optical interfaces, the available SFP optical module is 1000BASE-X. • For 1000 Mbit/s SFP electrical interfaces, the available SFP electrical module is 1000BASE-T
ISCOM2624G-4C-PWR	4	The interface supports the following optical modules: • For 10 Gbit/s SFP+ optical interfaces, the available SFP+ optical module is 10GBASE-X. • For 1000 Mbit/s SFP optical interfaces, the available SFP optical module is 1000BASE-X. • For 1000 Mbit/s SFP electrical interfaces, the available SFP electrical module is 1000BASE-T
ISCOM2648G-4GE	4	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.

Interface		Quantity	Description
	ISCOM2648G-4GE-RPS	4	1000 Mbit/s Combo interface The SFP interface supports the following SFP optical modules: • 1000BASE-X • 100BASE-FX The SFP interface supports the 1000BASE-T SFP electrical module. The GE interface supports the 10/100/1000BASE-T auto-negotiation electrical interface.
	ISCOM2648G-4C	4	The interface supports the following optical modules: • For 10 Gbit/s SFP+ optical interfaces, the available SFP+ optical module is 10GBASE-X. • For 1000 Mbit/s SFP optical interfaces, the available SFP optical module is 1000BASE-X. • For 1000 Mbit/s SFP electrical interfaces, the available SFP electrical module is 1000BASE-T
Downlink interfaces	ISCOM2608G-2GE	8	10/100/1000BASE-T auto-negotiation electrical interface
	ISCOM2608G-2GE-PWR	8	10/100/1000BASE-T auto-negotiation electrical interface • Support supplying power for the remote PD through PoE. • Support up to 30 W output power per interface. • Support a total power supply of up to 124 W through 8 interfaces (each interface provides 15.4 W) or 4 interfaces (each interface provides 30 W).
	ISCOM2624G-4GE	24	10/100/1000BASE-T auto-negotiation electrical interface
	ISCOM2624G-4GE-PWR	24	10/100/1000BASE-T auto-negotiation electrical interface • Support supplying power for the remote PD through PoE. • Support up to 30 W output power per interface. • Support a total power supply of up to 370 W through 24 interfaces (each interface provides 15.4 W) or 12 interfaces (each interface provides 30 W).

Interface	Quantity	Description
ISCOM2624G-4GE-RPS	24	10/100/1000BASE-T auto-negotiation electrical interface
ISCOM2624G-4C	24	10/100/1000BASE-T auto-negotiation electrical interface
ISCOM2624G-4C-PWR	24	10/100/1000BASE-T auto-negotiation electrical interface
ISCOM2648G-4GE	48	10/100/1000BASE-T auto-negotiation electrical interface
ISCOM2648G-4GE-RPS	48	10/100/1000BASE-T auto-negotiation electrical interface
ISCOM2648G-4C	48	10/100/1000BASE-T auto-negotiation electrical interface

10 Gbit/s SFP+ optical interface

Table 3-2 lists parameters of the 10 Gbit/s SFP+ optical interface.

Table 3-2 Parameters of 10 Gbit/s SFP+ optical interface

Parameter	Description
Connector type	LC/PC
Optical interface properties	Depend on the selected SFP optical module.
Coding type	64B/66B
Transmission rate	10 Gbit/s
Working mode	Full duplex

1000 Mbit/s SFP optical interface

Table 3-3 lists parameters of the 1000 Mbit/s SFP optical interface.

Table 3-3 Parameters of 1000 Mbit/s SFP optical interface

Parameter	Description
Connector type	LC/PC
Optical interface properties	Depend on the selected SFP optical module.
Coding type	8B/10B
Working mode	Full duplex

Parameter	Description
Standard	IEEE 802.3-compliant

100 Mbit/s SFP optical interface

Table 3-4 lists parameters of the 100 Mbit/s SFP optical interface.

Table 3-4 Parameters of 100 Mbit/s SFP optical interface

Parameter	Description
Connector type	LC/PC
Optical interface properties	Depend on the selected SFP optical module.
Coding type	4B/5B
Working mode	Full duplex
Standard	IEEE 802.3-compliant

1000 Mbit/s Ethernet electrical interface

Table 3-5 lists parameters of the 10/100/1000 Mbit/s Ethernet electrical interface.

Table 3-5 Parameters of 10/100/1000 Mbit/s Ethernet electrical interface

Parameter	Description
Connector type	RJ45
Working mode	• 10/100/1000 Mbit/s auto-negotiation • Full/Half duplex auto-negotiation
Cable specifications	• In 10/100 Mbit/s mode, we recommend using the Cat 5 UTP cable. • In 1000 Mbit/s mode, we recommend using the Cat 5e UTP or STP cable.
Standard	IEEE 802.3-compliant

3.2.2 Management interfaces

Table 3-6 lists types and usage of management interfaces on the ISCOM2600G series switch.

Table 3-6 Management interfaces

Interface	Description	Quantity
Console (RJ45)	Local management and control interface. You can log in to the ISCOM2600G series switch through Hyper Terminal to conduct local management and configurations.	1

Interface	Description	Quantity
SNMP (RJ45)	10/100BASE-T auto-negotiation electrical interface. You can conduct out-of-band management on the ISCOM2600G series switch through the SNMP interface.	1

RJ45 Console interface

Table 3-7 lists parameters of the RJ45 Console interface.

Table 3-7 Parameters of RJ45 Console interface

Parameter	Description
Connector type	RJ45
Working mode	Duplex UART
Electrical feature	RS-232
Baud rate	9600 baud

SNMP interface

Table 3-8 lists parameters of the SNMP interface.

Table 3-8 Parameters of SNMP interface

Parameter	Description
Connector type	RJ45
Transmission rate	10/100BASE-T auto-negotiation
Wiring	Support adaption to the straight-through cable and crossover cable in host mode.
Standard	IEEE 802.3-compliant

3.3 Power interfaces

3.3.1 DC power

Introduction

The DC power supply provides -48 VDC power.

Interface

There is a DC power input interface on the panel of the ISCO2600 series switch, as shown in Figure 3-34.

Figure 3-34 DC power interface
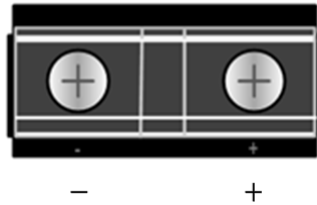
Table 3-9 describes the DC power interface.

Table 3-9 DC power interface

Power interface	Type	Print	Usage
DC power interface	Fence terminal	–	-48V power input terminal
		+	GND power input terminal

Parameters

Table 3-10 lists parameters of the DC power interface.

Table 3-10 Parameters of DC power interface

Parameter	Description
Rated input voltage	-48 VDC
Voltage range	-36 to -72 VDC

3.3.2 AC power interface

Introduction

The AC power supply supports the following features:

- Supply 220 VAC power supply.
- Support a lightning protection level of 6 kV in both common mode and differential mode.

Interfaces

There is an AC power input interface on the panel of the ISCO2600 series switch, as shown in Figure 3-35.

Figure 3-35 AC power interface
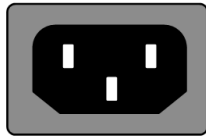
Parameters

Table 3-11 lists parameters of the AC power interface.

Table 3-11 Parameters of AC power interface

Parameter	Description
Rated input voltage	220 VAC
Voltage range	100–240 VAC
Frequency	50/60 Hz

3.3.3 RPS power interface

Introduction

The ISCOM2624G-4GE-RPS-AC and ISCOM2648G-4GE-RPS-AC provide 12 V input RPS power interfaces. You can purchase RPS power supplies additionally for backup.

Interface

The RPS power interface adopts 2 pins on the 3-pin Phoenix connector (with pin spaces of 5.08 mm), as shown in Figure 3-36 and Figure 3-37.

Figure 3-36 ISCOM2624G-4GE-RPS-AC power interface
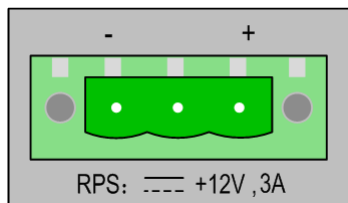
Figure 3-37 ISCOM2648G-4GE-RPS-AC power interface
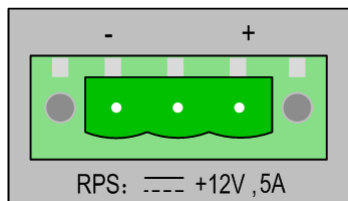
Table 3-12 lists details about the RPS power interface.

Table 3-12 Details about the RPS power interface

Interface	Type	Print	Usage
RPS power interface	3-pin Phoenix connector	-	GND power input terminal
		+	+12V power input terminal

Specifications

Table 3-13 lists parameters of the RPS power interface.

Table 3-13 Parameters of the RPS power interface

Parameter	Description
Connector type	3-pin Phoenix connector (with spaces of 5.08 mm)
Rated voltage	12 VDC
Voltage range	11.64–12.36 VDC

3.4 LEDs

3.4.1 ISCOM2608G-2GE

Table 3-14 lists LEDs on the ISCOM2608G-2GE.

Table 3-14 LEDs on ISCOM2608G-2GE

LED	Status	Description
LNK/ACT 1–8	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
LNK/ACT 9–10	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off, the power supply fails, or the power supply is configured as a single power supply and not installed.

LED	Status	Description
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.

3.4.2 ISCOM2608G-2GE-PWR

Table 3-15 lists LEDs on the ISCOM2608G-2GE-PWR.

Table 3-15 LEDs on ISCOM2608G-2GE-PWR

LED	Status	Description
LNK/ACT 1–8	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
– Port 1–Port 8 PoE	Yellow	PoE working status LED • Yellow: the interface is supplying power to the remote device. • Off: the interface is not supplying power to the remote device.
LNK/ACT 9–10	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is not powered on or the power supply fails.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.

LED	Status	Description
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.

3.4.3 ISCOM2624G-4GE

Table 3-16 lists LEDs on the ISCOM2624G-4GE.

Table 3-16 LEDs on ISCOM2624G-4GE

LED	Status	Description
LNK/ACT 1–24	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
LNK/ACT 25–28	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off or the power supply is improperly installed.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.

3.4.4 ISCOM2624G-4GE-PWR

Table 3-16 lists LEDs on the ISCOM2624G-4GE-PWR.

Table 3-17 LEDs on ISCOM2624G-4GE-PWR

LED	Status	Description
LNK/ACT 1–24	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
– Port 1–Port 24 PoE	Green	PoE working status LED • Yellow: the interface is supplying power to the remote device. • Off: the interface is not supplying power to the remote device.
LNK/ACT 25–28	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off or the power supply is improperly installed.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.
PoE	Green	PoE mode switching LED • Green: LED 1–24 indicates the PoE status of the corresponding interfaces. • Off: LED 1–24 indicates the LNK/ACT status of the corresponding interfaces.

3.4.5 ISCOM2624G-4GE-RPS

Table 3-18 lists LEDs on the ISCOM2624G-4GE-RPS.

Table 3-18 LEDs on the ISCOM2624G-4GE-RPS

LED	Status	Description
LNK/ACT Port1–Port24	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
LNK/ACT Port25–Port28	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off or is improperly installed.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.
RPS	Green	RPS power LED • Green: the RPS is supplying power. • Off: the RPS is not supplying power.

3.4.6 ISCOM2624G-4C

Table 3-19 lists LEDs on the ISCOM2624G-4C.

Table 3-19 LEDs on ISCOM2624G-4C

LED	Status	Description
LNK/ACT Port1–Port24	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
LNK/ACT Port25–Port28	Green	10 Gbit/s SFP+ interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.

LED	Status	Description
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off or the power supply is improperly installed.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.

3.4.7 ISCOM2624G-4C-PWR

Table 3-20 lists LEDs on the ISCOM2624G-4C-PWR.

Table 3-20 LEDs on ISCOM2624G-4C-PWR

LED	Status	Description
ETH: LNK/ACT Port1–Port24	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
POE: POWER Port1–Port24 POE LEDs	Green	Ethernet interface PoE working status LED • Green: the interface is supplying power remotely. • Off: the interface is not supplying power.
LNK/ACT Port25–Port28	Green	10 Gbit/s SFP+ interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off or the power supply is improperly instaalled.

LED	Status	Description
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.
POE	Green	POE mode switching LED • Green: LEDs 1–24 correspond to the PoE status of the corresponding interfaces. • Off: LEDs 1–24 corresponds to the LNK/ACT status of the corresponding interfaces.

3.4.8 ISCOM2648G-4GE

Table 3-21 lists LEDs on the ISCOM2648G-4GE.

Table 3-21 LEDs on ISCOM2648G-4GE

LED	Status	Description
– Port1–Port48 LNK/ACT LED	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
– Port1–Port48 SPEED LED	Green	Ethernet interface working rate LED • Green: the interface works at 1000 Mbit/s. • Off: the interface works at 100 Mbit/s or stops working.
LNK/ACT Port49– Port52	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
SPEED Port49– Port52	Green	Combo interface working rate LED • Green: the interface works at 10 Gbit/s. • Off: the interface works at 1000 Mbit/s or stops working.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off, the power supply fails, or the power supply is configured as a single power supply and not installed.

LED	Status	Description
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.

3.4.9 ISCOM2648G-4GE-RPS

Table 3-22 lists LEDs on the ISCOM2648G-4GE-RPS.

Table 3-22 LEDs on the ISCOM2648G-4GE-RPS

LED	Status	Description
Port1–Port48 LNK/ACT LED	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
– Port1–Port48 SPEED LED	Green	Ethernet interface working rate LED • Green: the interface works at 1000 Mbit/s. • Off: the interface works at 100 Mbit/s or stops working.
LNK/ACT Port49–Port52	Green	Combo interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
SPEED Port49–Port52	Green	Combo interface working rate LED • Green: the interface works at 10 Gbit/s. • Off: the interface works at 1000 Mbit/s or stops working.
PWR	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is not powered on or fails, or the power supply is configured as single power and not installed.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.

LED	Status	Description
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.
RPS	Green	RPS power LED • Green: the RPS is supplying power. • Off: the RPS is not supplying power.

3.4.10 ISCOM2648G-4C

Table 3-23 lists LEDs on the ISCOM2648G-4C.

Table 3-23 LEDs on ISCOM2648G-4C

LED	Status	Description
– Port1–Port48	Green	Ethernet interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
LNK/ACT Port49– Port52	Green	10 Gbit/s SFP+ interface working status LED • Green: the interface is properly connected. • Blinking green: the interface is receiving or sending data. • Off: the interface is disconnected or improperly connected.
PWR1/2	Green	Power working status LED • Green: the power supply is normal. • Off: the power supply is off, the power supply fails, or the power supply is configured as a single power supply and not installed.
SNMP	Green	SNMP interface working status LED • Green: the SNMP interface is properly connected. • Blinking green: the SNMP interface is receiving or sending data. • Off: the SNMP interface is disconnected or improperly connected.
SYS	Green	System working LED • Green: the system is working improperly. • Blinking green (every 1s): the system has loaded the configuration file or the device is configured. • Off: the system is working improperly.

Note

The 24 Ethernet electrical interfaces, numbered 1–24, on the ISCOM2624G-4GE-PWR and ISCOM2624G-4C-PWR are all PoE interfaces. Each interface corresponds to one LED which displays the LNK/ACT or PoE power supply status in different modes. You can switch the status through the Mode button. When the LEDs are in PoE status, they are the power supply LEDs of the corresponding interfaces. When the PoE LEDs are off, they are switched to the LNK/ACK status displaying the LNK/ACK LEDs of the corresponding interfaces.
LEDs 1–24 are in LNK/ACT status by default. In this case, the PoE LEDs are off. If you press the Mode button, the LEDs will be switched to the PoE status. Then if you press the Mode button again, the LEDS will be switched to the LNK/ACT status again. When the PoE LEDs are on and the Mode button has not been pressed within 10s, the system will automatically switch them to the LNK/ACT status and meanwhile the PoE LEDs become off.

4 Device installation

This chapter describes how to install the ISCOM2600G series switch, including the following sections:

- Installing hardware
- Installing software

4.1 Installing hardware

The ISCOM2600G series switch adopts a 1U cartridge structure. It can be easily installed in the following scenarios of a telecom equipment room:

- Cabinet
- Workbench

4.1.1 Preparing for installation

Environment conditions

Table 4-1 lists requirements on the operation environment of the ISCOM2600G series switch.

Table 4-1 Requirements on operation environment

Parameter	Description
Operating temperature (altitude 0–1800 m)	0–50 ℃
Operating humidity	10%–90% RH (non-condensing)
Storage temperature	-25 to 60 ℃
Air pressure	86–106 kPa

![Note icon] Note

When the altitude is from 1800m to 5000m, every time the altitude is increased by 220 m, the maximum operating temperature of the equipment will be decreased by 1°C.

Power supply conditions

Table 4-2 lists power supply requirements on the operation of the ISCOM2600G series switch.

Table 4-2 Power supply requirements on operation

Parameter	Description
Power supply	• AC power: the rated voltage is 220 VAC, and the voltage ranges from 100 to 240 VAC. • DC power: the rated voltage is -48 VDC, and the voltage ranges from -36 to -72 VDC.
Maximum power consumption	• ISCOM2608G-2GE: 15 W • ISCOM2608G-2GE-PWR: up to 141 W, the PoE interfaces supply power up to 124 W. • ISCOM2624G-4GE: 25 • ISCOM2624G-4GE-PWR: up to 450 W, the PoE interfaces supply power up to 370 W. • ISCOM2624G-4GE-RPS: 25 • ISCOM2624G-4C: 25 • ISCOM2624G-4C-PWR: up to 450, the PoE interfaces supply power up to 370 W. • ISCOM2648G-4GE: 45 • ISCOM2648G-4GE-RPS: 45 • ISCOM2648G-4C: 45

![Warning icon] Warning

The ISCOM2600 is supplied by multiple power supplies. Do remember to disconnect all power inputs when powering off the device.

Grounding conditions

The ISCOM2600G series switch adopts common earthing mode, and the ground resistance should be no greater than 1 Ω. Well grounding is the first guarantee for lightning protection and anti-interference.

4.1.2 Installing device

Rack installation

![Note icon] Note

The installation mode of the ISCOM2600G series switch is identical. The following installation takes the ISCOM2648G-4C for example. The ISCOM2608G-2GE and

ISCOM2608G-2GE-PWR adopt the non-standard 1U chassis. If you wish to install them in a rack, buy the customized 19" brackets additionally.

⚠ **Caution**

The device is heavy. The brackets, which cannot bear load independently, are for positioning only. Therefore, you have to install the device to a guide rail or a tray. Prepare the guide rail or tray by yourself.

The ISCOM2648G-4C can be installed in a rack, with steps as below:

Step 1 Ensure that the rack is stable.

Step 2 Install brackets on both sides of the ISCOM2600G series switch respectively, and fix them with screws, as shown in Figure 4-1.

Figure 4-1 Installing brackets
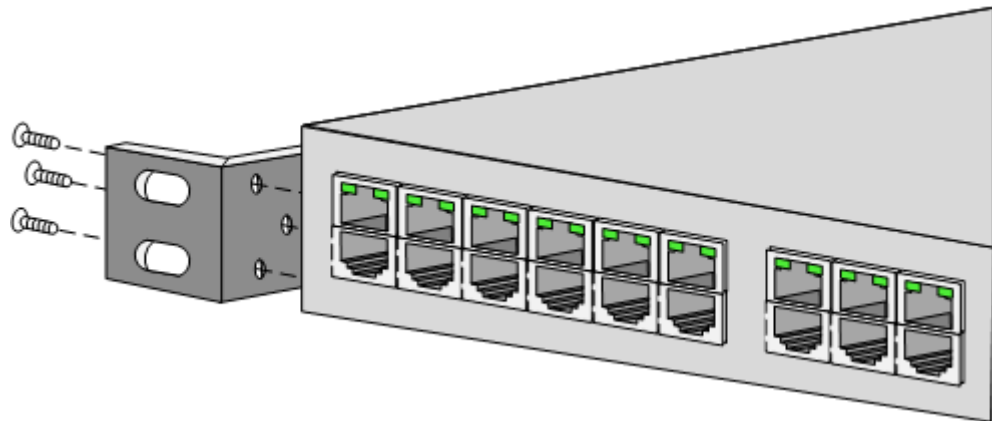
Step 3 Install floating nuts in the rack, as shown in Figure 4-2.

Figure 4-2 Installing floating nuts
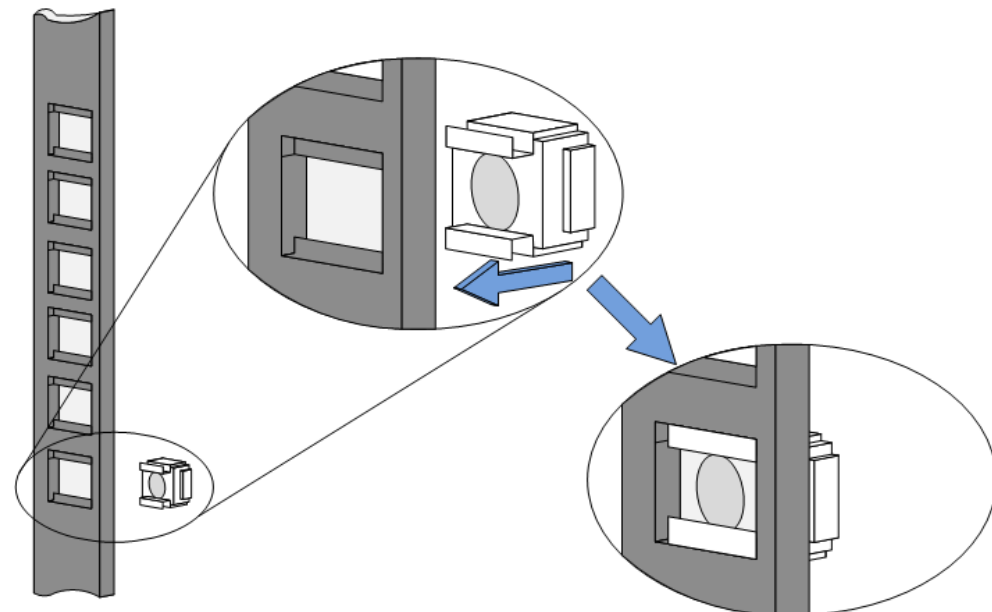
Step 4 Install guide rails in the rack, as shown in Figure 4-3.

Figure 4-3 Installing guide rails
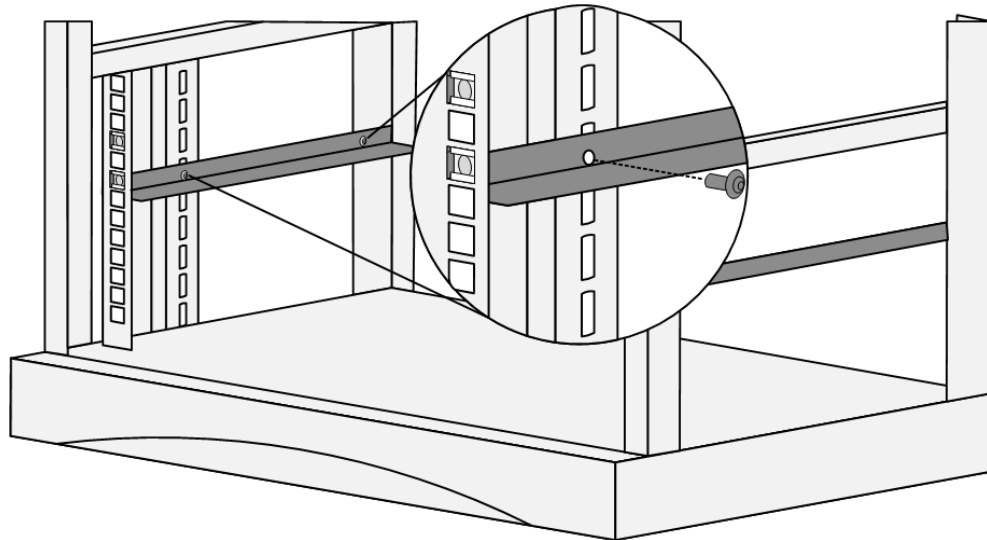
Step 5 Fix brackets to guide rails at both sides of the rack with screws, and install the ISCOM2648G-4C horizontally in the rack, as shown in Figure 4-4.

Figure 4-4 Installing device horizontally in rack
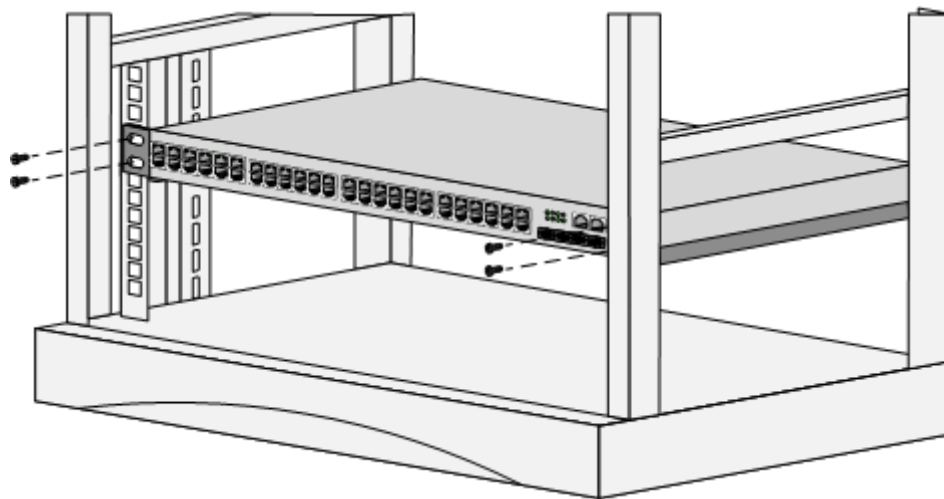
⚠ Caution

Do not lay heavy objects or coverings on the ISCOM2600G series switch.

Wall-mount installation

✏ Note

At present, only the ISCOM2608G-2GE supports wall-mount installation. The wall-mount brackets and M3*6 screws used during installation are accessories. Purchase them additionally as required.
The ISCOM2608G-2GE supports wall-mount installation with the installation steps as below:

Step 1   Choose a proper wall-mount height where you can easily observe the LEDs and connect the power supply.

Step 2   Use the M3*6 screws to install the wall-mount brackets to both sides of the device (Figure 4-5 shows how to install brackets to one side. Do the same on the other side.), as shown in Figure 4-5.

Figure 4-5 Installing wall-mount brackets
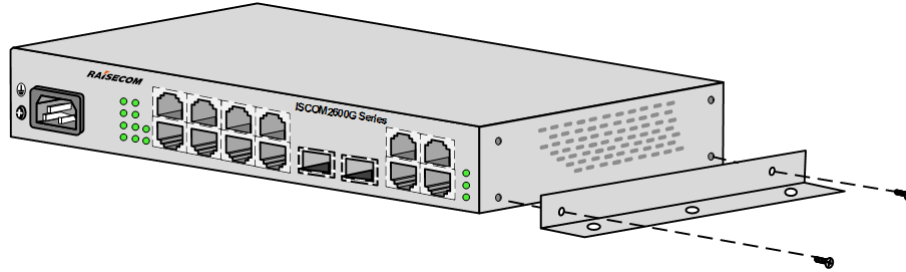
Step 3   Drill four holes on the wall according to the distance of the two holes on the brackets and the device width. Keep the lines connected by the brackets parallel both horizontally and vertically, and fix four screws to the wall, as shown in Figure 4-6.

Figure 4-6 Installing screws
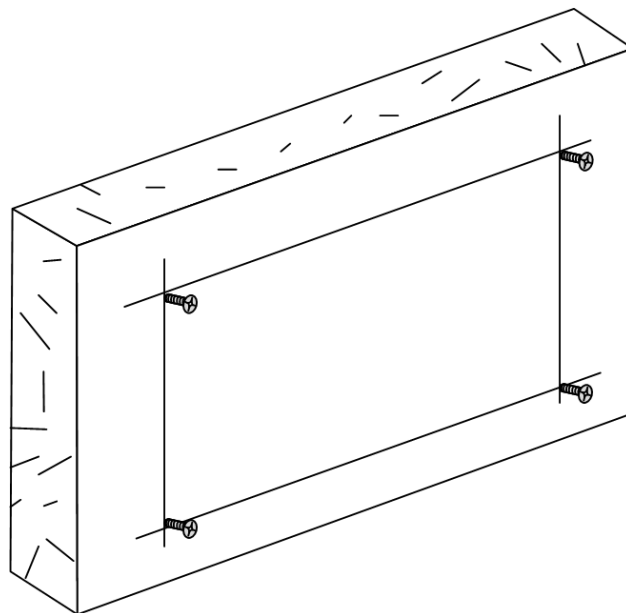
Step 4   Align the holes on the wall-mount brackets with the screws, snap the device slightly, and then let go of your hands, as shown in Figure 4-7.

Figure 4-7 Wall-mount installation
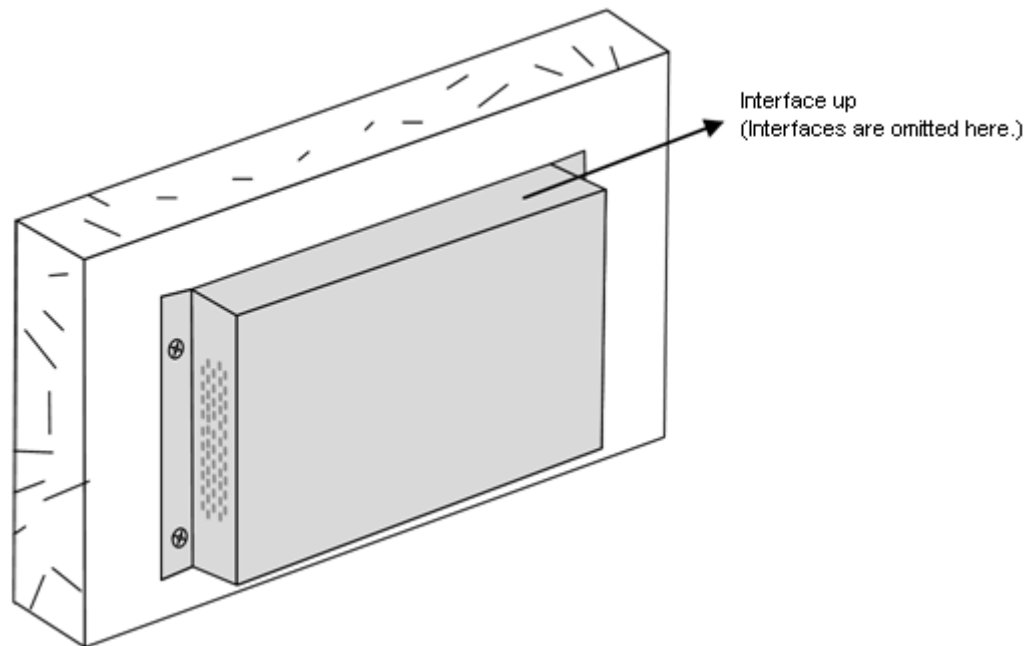
Step 5 Swing the device using proper strength to see whether it is secured.

4.1.3 Connecting cables

Connecting fiber

⚠️ **Warning**

There is invisible laser which harms eyes inside the ISCOM2600G series switch. Do not stare into the optical interface, fiber connector, or breakage of fiber directly.

Connect fiber as below:

Step 1 Remove the dustproof cover from the SFP optical interface and SFP optical module, and insert the SFP optical module into the optical interface on the ISCOM2600G series switch, as shown in Figure 4-8.

Figure 4-8 Inserting SFP optical module
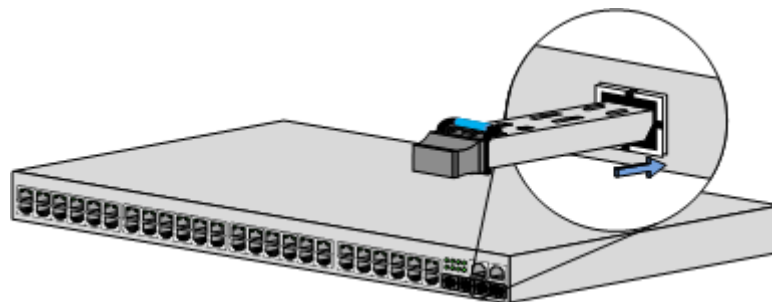
Step 2 Remove the dustproof cover from the LC/PC fiber, align the fiber with the SFP optical interface, and insert the fiber slightly into the SFP optical interface, as shown in Figure 4-9.

Figure 4-9 Connecting fiber
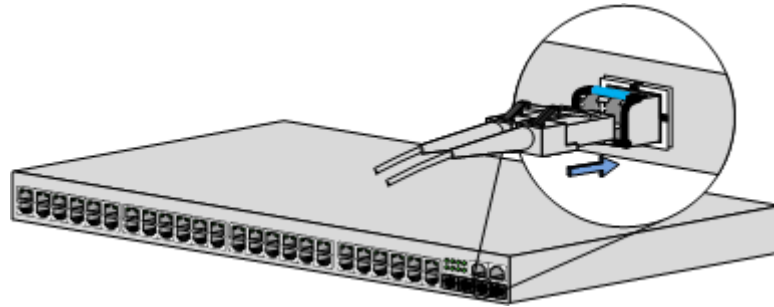
- Figure 4-9 takes the 1000 Mbit/s SFP optical module for example. The connection of the 10 Gbit/s SFP+ optical module is identical.
- When the optical interface is idle, cover it with a dustproof cap to prevent dust and dirt which may make the ISCOM2600G series switch work improperly.

Connecting Ethernet cable

Connect the Ethernet cable as below:

Step 1   Choose a proper length for the Ethernet cable according to cabling path, and make an Ethernet cable accordingly.

Step 2   Insert the RJ45 connector of the Ethernet cable into the Ethernet interface of the ISCOM2600G series switch, and insert the other RJ45 connector of the Ethernet cable into the Ethernet interface of the peer device, as shown in Figure 4-10.

Figure 4-10 Connecting Ethernet cable
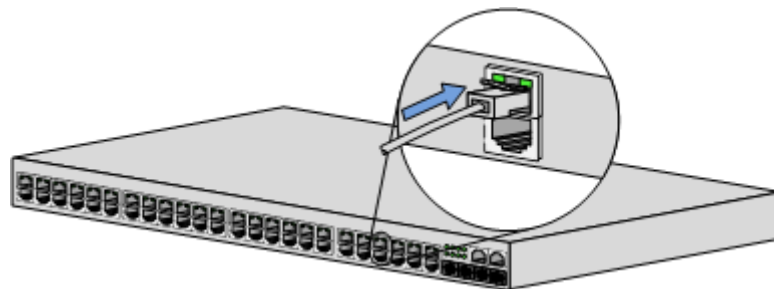
Connecting ground cable

Connecting the ground cable properly is an important guarantee for lightning protection, shock proof, and anti-interference. When installing and using the device, ensure that the ground cable is properly connected; otherwise, personnel injury or equipment damage may occur.

Install the ground cable as below:

Step 1   Unscrew ground terminal counterclockwise, and remove the screws and washers.

Step 2   Put the flat washer, ground OT terminal, and lock washer in sequence over the screw.

Step 3 Reinstall the screw to the ground terminal, and tighten the screws clockwise, as shown in Figure 4-11.

Figure 4-11 Connecting ground cable
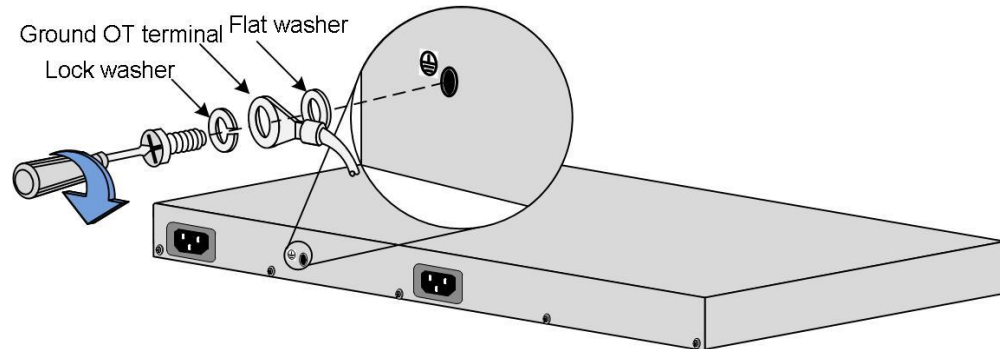
Connecting AC power cable

Connect the AC power cable as below:

Step 1 Ensure that the ISCOM2600G series switch is well grounded.

Step 2 Insert the C13 connector of the AC power cable into the AC power interface on the rear panel tightly. Insert the power plug of the AC power cable into the AC power socket of the power sourcing equipment, as shown in Figure 4-12.

Figure 4-12 Connecting AC power cable
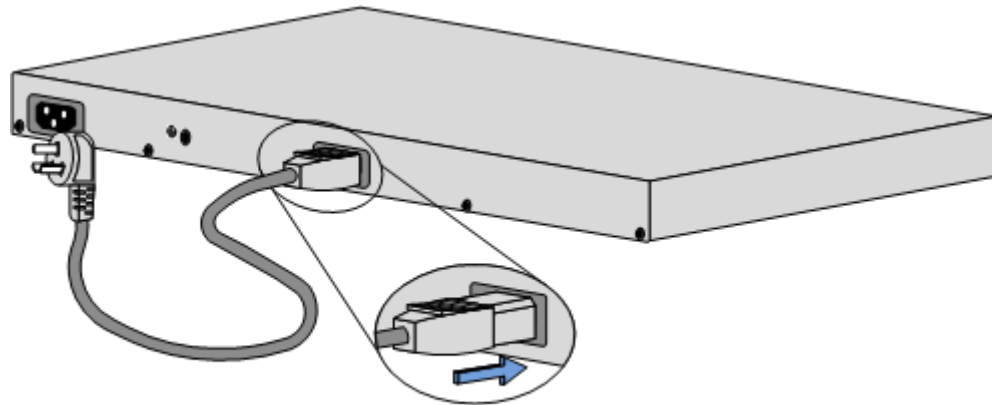
Connecting DC power

Connect the DC power cable as below:

Step 1 Ensure that the ISCOM2600G series switch is well grounded.

Step 2 Open the cover on the power interface. Loosen the screws and then connect the DC power cable.

Step 3 Fasten the screws and then close the cover, as shown in Figure 4-13.

Figure 4-13 Connecting DC power cable
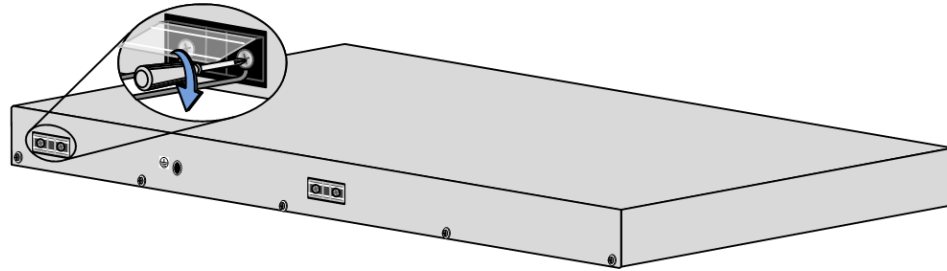
Step 4 Connect the other end of the DC power cable to the power sourcing equipment in the equipment room.

Connecting RJ45 Console cable

Install the RJ45 Console cable as below:

Step 1 Insert the RJ45 connector of the RJ45 Console cable into the Console interface on the ISCOM2600G series switch.

Step 2 Insert the other end of the RJ45 Console cable into the RS-232 serial interface on a PC (or maintenance terminal), as shown in Figure 4-14.

Figure 4-14 Connecting RJ45 Console cable
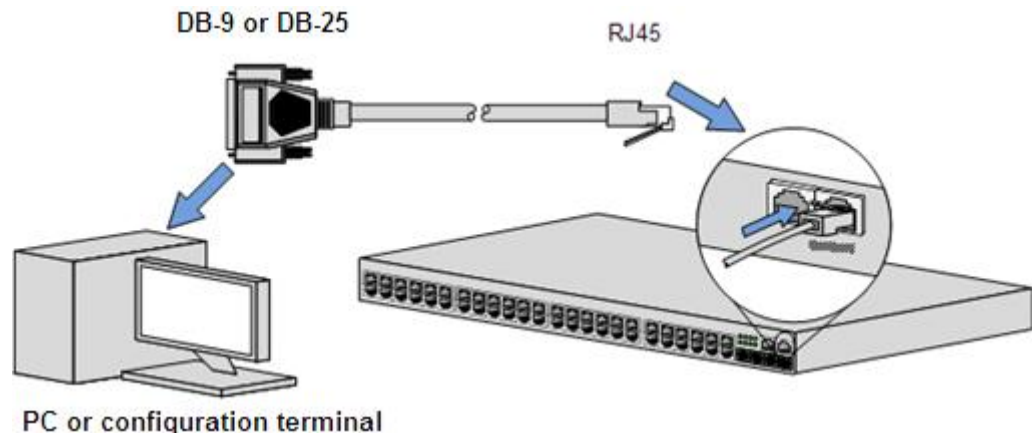
4.2 Installing software

The ISCOM2600G series switch is installed with all necessary software before delivery so that it can be powered on immediately for use after hardware installation is complete.

You can upgrade software of the ISCOM2600G series switch. For details, see *ISCOM2600G (A) Series Configuration Guide*.

For details about installation and operations about the NView NNM network management software, see NView NNM related manual.

5 Technical specifications

This chapter describes overall parameters, system parameters, card parameters, and technical specifications, including the following sections:

- Overall parameters
- Laser safety class
- Reliability specifications
- EMC indexes
- Safety standards
- Environmental requirements
- Standards and protocols

5.1 Overall parameters

Table 5-1 lists overall parameters of the ISCOM2600G series switch.

Table 5-1 Overall parameters of the ISCOM2600G series switch

Parameter	Description
Dimensions (mm)	• ISCOM2608G-2GE: 260 (Width) $\times$ 130 (Depth) $\times$ 44 (Height) • ISCOM2608G-2GE-PWR: 300 (Width) $\times$ 220 (Depth) $\times$ 44 (Height) • ISCOM2624G-4C: 440 (Width) $\times$ 220 (Depth) $\times$ 44 (Height) • ISCOM2624G-4C-PWR: 440 (Width) $\times$ 300 (Depth) $\times$ 44 (Height) • ISCOM2624G-4GE: 440 (Width) $\times$ 220 (Depth) $\times$ 44 (Height) • ISCOM2624G-4GE-PWR: 440 (Width) $\times$ 300 (Depth) $\times$ 44 (Height) • ISCOM2624G-4GE-RPS: 440 (Width) $\times$ 220 (Depth) $\times$ 44 (Height) • ISCOM2648G-4GE: 440 (Width) $\times$ 300 (Depth) $\times$ 44 (Height) • ISCOM2648G-4GE-RPS: 440 (Width) $\times$ 300

Parameter		Description
		(Depth) $\times$ 44 (Height) • ISCOM2648G-4C: 440 (Width) $\times$ 300 (Depth) $\times$ 44 (Height)
Overall power consumption (W)		• ISCOM2608G-2GE: 15 • ISCOM2608G-2GE-PWR: up to 141, the PoE interface supplies power up to 124. • ISCOM2624G-4GE: 25 • ISCOM2624G-4GE-RPS: 25 • ISCOM2624G-4GE-PWR: up to 450, the PoE interface supplies power up to 370. • ISCOM2624G-4C: 25 • ISCOM2624G-4C-PWR: up to 450, the PoE interface supplies power up to 370. • ISCOM2648G-4GE: 45 • ISCOM2648G-4GE-RPS: 45 • ISCOM2648G-4C: 45
Weight (kg)		• ISCOM2608G-2GE: 1.0 • ISCOM2608G-2GE-PWR: 2.5 • ISCOM2624G-4GE: 2.6 • ISCOM2624G-4GE-PWR: 5.0 • ISCOM2624G-4GE-RPS: 2.6 • ISCOM2624G-4C: 2.6 • ISCOM2624G-4C-PWR: 5.0 • ISCOM2648G-4GE: 4.3 • ISCOM2648G-4GE-RPS: 4.3 • ISCOM2648G-4C: 4.3
Operating temperature (altitude 0–1800 m)		0–50 ℃
Operating humidity		10%–90% RH (non-condensing)
DC power	Rated voltage	-48 VDC
	Voltage range	-36 to -72 VDC
AC power	Rated voltage	220 VAC
	Voltage range	100–240 VAC
	Frequency	50/60 Hz
Lightning protection level	AC power	• ISCOM2624G-4C: 6 kV in differential mode and 6 kV in common mode • ISCOM2624G-4GE: 6 kV in differential mode and 6 kV in common mode • ISCOM2648G-4C: 1 kV in differential mode and 2 kV in common mode • I ISCOM2608G-2GE: 6 kV in differential mode and 6 kV in common mode • ISCOM2608G-2GE-PWR: 6 kV in differential mode and 6 kV in common mode • ISCOM2624G-4GE: 6 kV in differential mode and 6 kV in common mode • ISCOM2624G-4GE-PWR: 6 kV in differential mode and 6 kV in common mode

Parameter	Description
	• ISCOM2624G-4GE-RPS: 6 kV in differential mode and 6 kV in common mode • ISCOM2624G-4C: 6 kV in differential mode and 6 kV in common mode • ISCOM2624G-4C-PWR: 6 kV in differential mode and 6 kV in common mode • ISCOM2648G-4GE: 6 kV in differential mode and 6 kV in common mode • ISCOM2648G-4GE-RPS: 6 kV in differential mode and 6 kV in common mode • ISCOM2648G-4C: 1 kV in differential mode and 2 kV in common mode
DC power	Except the ISCOM2608-2GE-DC, other modules support: • 1 kV in differential mode • 2 kV in common mode
Ethernet electrical interface	6 kV in common mode indoor

5.2 Laser safety class

According to the Tx power of Laser, the ISCOM2600G series switch laser belongs to Class 1 in safety class.

In Class 1, the maximum Tx power on the optical interface is smaller than 10 dBm (10 mW).

 Warning

The laser inside fiber may hurt your eyes. Do not stare into the optical interface directly during installation and maintenance.

5.3 Reliability specifications

Table 5-2 lists reliability specifications of the ISCOM2600G series switch.

Table 5-2 Reliability specifications

Parameter	Description
System availability	99.999%. The annual failure time for the ISCOM2600G series switch should be no longer than 5 minutes.
Annually system mean repair rate	< 1.5%
MTTR	< 2 hours

Parameter	Description
MTBF	100000 hours

5.4 EMC indexes

The ISCOM2600G series switch, designed according to ETS 300 386 series and ETS 300 127 series of European Telecommunication Standards Institute (ETSI), has passed Electromagnetic Compatibility (EMC) tests.

5.5 Safety standards

The ISCOM2600G series switch complies with the following safety standards:

- EN 60950
- UL 60950
- CSA C22.2 No. 60950-1-03
- CSA C22.2 No. 60950-1-07

Warning

The ISCOM2600G series switch is rated as Class A devices. In the living environment, they may cause radio interference. In this case, you may need to take practical measures against the interference.

5.6 Environmental requirements

The ISCOM2600G series switch complies with the following environmental requirements:

- GF 014-1995: telecommunication equipment room conditions
- NEBS GR-63-CORE: Network Equipment-Building System (NEBS) Requirements: Physical Protection
- European Telecommunication Standards Institute (ETSI) EN 300 019

5.6.1 Storage environment

Atmosphere environment

Table 5-3 lists atmosphere requirements for the ISCOM2600G series switch during storage.

Table 5-3 Atmosphere requirements during storage

Parameter	Description
Air pressure (kPa)	86–106
Temperature (°C)	-25 to +60

Parameter	Description
Relative humidity	10%−90%
Solar radiation (W/s²)	≤ 1120
Heat radiation (W/s²)	≤ 600
Wind speed (m/s)	≤ 20

Waterproof environment

We recommend keeping the ISCOM2600G series switch indoor on the following conditions:

- No ponding on the ground
- No water dropping above the package box
- Away from any water leakage area, such as the automatic fire-fighting equipment or heater

If the ISCOM2600G series switch is stored outdoor, ensure the following four prerequisites:

- The package box is intact.
- Rainproof measures are taken so that rain will not leak into the package box.
- No ponding is around the package box.
- The package box is not directly exposed to the sun.

Biotic environment

Keep the ISCOM2600G series switch away from:

- Fungus and mould
- Rodent animals, such as rats

5.6.2 Transport environment

Atmosphere environment

Table 5-4 lists atmosphere requirements for the ISCOM2600G series switch during transport.

Table 5-4 Atmosphere requirements during transport

Parameter	Description
Air pressure (kPa)	86–106
Temperature (°C)	-25 to +60
Temperature change rate (°C/min)	≤ 1
Operating humidity	10%−90%
Solar radiation (W/s²)	≤ 1120

Parameter	Description
Heat radiation (W/s³)	≤ 600
Wind speed (m/s)	≤ 20

Waterproof environment

When transporting the ISCOM2600G series switch, ensure the following prerequisites:

- The package box is intact.
- Rainproof measures are taken so that rain will not leak into the package box.
- No ponding is inside the transport vehicle.

5.6.3 Operation environment

Atmosphere environment

Table 5-5 lists atmosphere requirements for the ISCOM2600G series switch during operation.

Note

The temperate and humidity referred to are measured 1.5 m above or 0.4 m in front of the ISCOM2600G series switch.

Table 5-5 Atmosphere requirements during operation

Parameter	Description
Air pressure (kPa)	86–106
Temperature (℃)	0–50
Relative humidity	10%–90% (non-condensing)
Temperature change rate (℃/min)	≤ 0.5
Solar radiation (W/s³)	≤ 700
Heat radiation (W/s³)	≤ 600
Wind speed (m/s)	≤ 5

Biotic environment

Keep the ISCOM2600G series switch away from:

- Fungus and mould
- Rodent animals, such as rats

5.7 Standards and protocols

The ISCOM2600G series switch complies with the following standards and protocols:

- MEF Technical Specification MEF 6.1 Ethernet Services Definitions - Phase 2
- MEF Implementation Agreement, MEF 8 Implementation Agreement for the Emulation of PDH Circuits over Metro Ethernet networks
- MEF Technical Specification, MEF 10.1 Ethernet Services Attributes - Phase 2
- MEF Technical Specification, MEF 11 User Network Interface (UNI) Requirements and Framework
- MEF Technical Specification, MEF 13 User Network Interface (UNI) Type 1 Implementation Agreement
- MEF Technical Specification, MEF 17 Service OAM Requirements & Framework
- MEF Technical Specification, MEF 20 User Network Interface (UNI) Type 2 Implementation Agreement
- IEEE 802.1D-2004 Part 3: Media Access Control (MAC) Bridges
- IEEE 802.1Q-2005 - Standard for Local and Metropolitan Area Networks - Virtual Bridged Local Area Networks
- IEEE 802.1s-2002 - Amendment to 802.1Q Virtual Bridged Local Area Networks: Multiple Spanning Trees
- IEEE 802.3-2005 Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications
- IEEE 802.1ag: Virtual Bridged Local Area Networks Amendment 5: Connectivity Fault Management
- IEEE 1588-2008 Standard for a Precision Clock Synchronization Protocol for Network Measurement and Control Systems
- ITU-T Y.1541 Network Performance Objectives For IP-Based Services
- ITU-T Y.1731 OAM Functions and Mechanisms for Ethernet based networks
- ITU-T G.8031 Ethernet linear protection switching
- ITU-T G.8032 Ethernet ring protection switching
- ITU-T G.8261 Timing and Synchronization Aspects in Packet Networks
- ITU-T G.8262 Timing Characteristics of Synchronous Ethernet Equipment Slave Clock (EEC)
- ITU-T G.823 The control of jitter and wander within digital networks which are based on the 2048 kbit/s hierarchy
- ITU-T G.824 The control of jitter and wander within digital networks which are based on the 1544 kbit/s hierarchy
- ITU-T G.825 The control of jitter and wander within digital networks which are based on synchronous digital hierarchy (SDH)
- RFC1349 Type of Service in the Internet Protocol Suite
- RFC2474 Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers
- RFC2475 An Architecture for Differentiated Services
- RFC2597 Assured Forwarding PHB Group
- RFC2598 An Expedited Forwarding PHB
- RFC2698 A Two Rate Three Color Marker

- RFC3086 Definition of Differentiated Services Per Domain Behaviors and Rules for their Specification
- RFC3140 Per Hop Behavior Identification Codes
- RFC3246 An Expedited Forwarding PHB (Per-Hop Behavior)
- RFC3247 Supplemental Information for the New Definition of the EF PHB (Expedited Forwarding Per-Hop Behavior)
- RFC3248 A Delay Bound alternative revision of RFC 2598
- RFC3260 New Terminology and Clarifications for DiffServ
- RFC3289 Management Information Base for the Differentiated Services Architecture
- RFC3290 An Informal Management Model for DiffServ Routers
- RFC3317 Differentiated Services Quality of Service Policy Information Base

6 Appendix

The appendix lists cables, SFP modules, terms, acronyms, and abbreviations, including the following sections:

- Cables
- SFP modules
- Terms
- Acronyms and abbreviations

6.1 Cables

The following cables are used when connecting the ISCOM2600G series switch:

- Cables
- Ethernet cable
- Ground cable
- DC power cable
- AC power cable
- RJ45 Console cable

6.1.1 Fiber

Introduction

The ISCOM2600G series switch supports Single-mode Fiber (SMF) and Multi-mode Fiber (MMF).

Table 6-1 lists fiber connectors available for the ISCOM2600G series switch.

Table 6-1 Fiber connectors

Local connector	Remote connector	Fiber
LC/PC	LC/PC	2 mm SMF
		2 mm MMF

Local connector	Remote connector	Fiber
	FC/PC	2 mm SMF
		2 mm MMF
	SC/PC	2 mm SMF
		2 mm MMF

![Note icon]

Choose the fiber connector properly as required on site. Otherwise, extra fiber loss will occur, service transmission will be deteriorated, and even the fiber connector and interface may be damaged.

Appearance

Figure 6-1 shows the LC/PC fiber connector.

Figure 6-1 LC/PC fiber connector
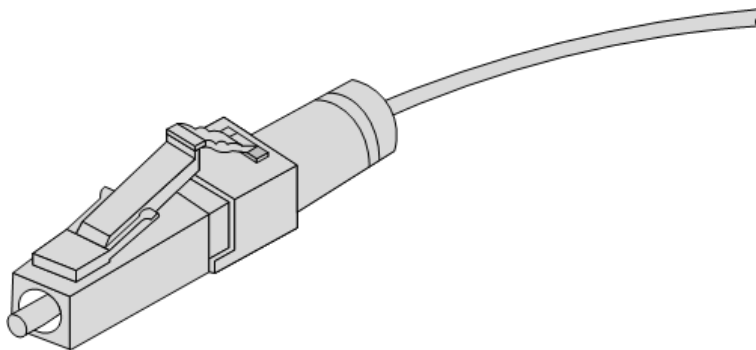
When connecting or removing the LC/PC optical connector, align the connector with the optical interface, and do not rotate the fiber. Operate the fiber as below:

- Align the head of the fiber jumper with the optical interface and insert the optical fiber into the interface gently.
- To remove the fiber, press the latch on the connector, press the fiber head inwards slightly, and pull the fiber out.

Wiring

Table 6-2 lists wiring of the fiber.

Table 6-2 Wiring of fiber

Wiring	Optical interface on local device	Direction of optical signals	Optical interface on peer device
Single-fiber wiring	Optical interface	<->	Optical interface

Wiring	Optical interface on local device	Direction of optical signals	Optical interface on peer device
Dual-fiber wiring	Tx optical interface	->	Rx optical interface
	Rx optical interface	<-	Tx optical interface

6.1.2 Ethernet cable

Introduction

The Ethernet cable connects the Ethernet electrical interface and SFP electrical interface on the ISCOM2600G series switch.

The Ethernet interface on the ISCOM2600G series switch is adaptive to straight-through cable mode and crossover cable mode.

Appearance

Figure 6-2 shows the Ethernet cable.

Figure 6-2 Ethernet cable
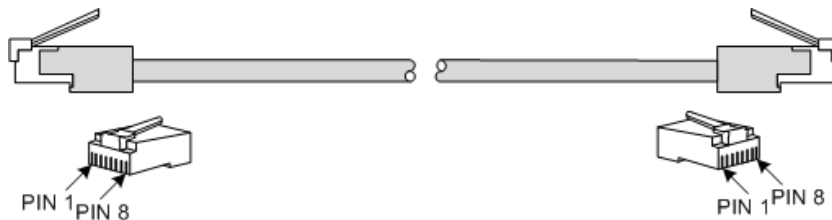
Technical specifications

The Ethernet cables are divided into two types:

- Straight-through cable: used to connect devices of different type, such as between a PC and a switch, or between a switch and a router
- Crossover cable: used to connect devices of the same type, such as between PCs, between switches, between routers, or between a PC and a router (they are of the same type)

Table 6-3 lists wiring of EIA/TIA 568A and EIA/TIA 568B standards.

Table 6-3 Wiring of EIA/TIA 568A and EIA/TIA 568B standards

Connector (RJ45)	EIA/TIA 568A	EIA/TIA 568B
PIN 1	White/Green	White/Orange
PIN 2	Green	Orange
PIN 3	White/Orange	White/Green
PIN 4	Blue	Blue

Connector (RJ45)	EIA/TIA 568A	EIA/TIA 568B
PIN 5	White/Blue	White/Blue
PIN 6	Orange	Green
PIN 7	White/Brown	White/Brown
PIN 8	Brown	Brown

Both two RJ45 connectors of the 10/100/1000 Mbit/s straight-through cable follow EIA/TIA568B standard wiring.

Figure 6-3 shows wiring of the 10/100/1000 Mbit/s straight-through cable.

Figure 6-3 Wiring of 10/100/1000 Mbit/s straight-through cable

Figure 6-4 shows wiring of the 100 Mbit/s crossover cable.
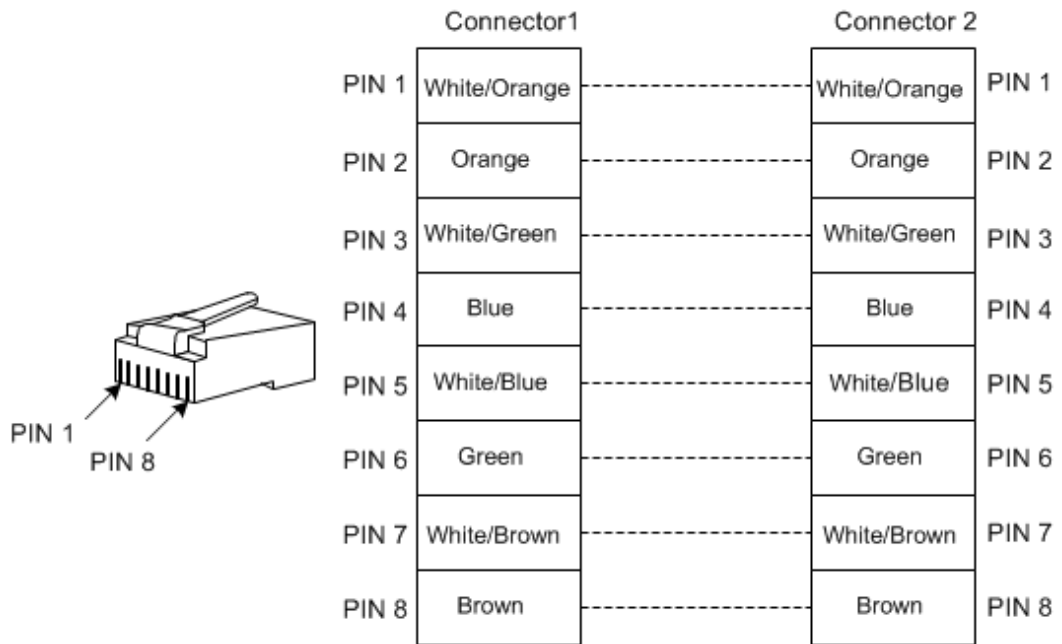
Figure 6-4 Wiring of 100 Mbit/s crossover cable
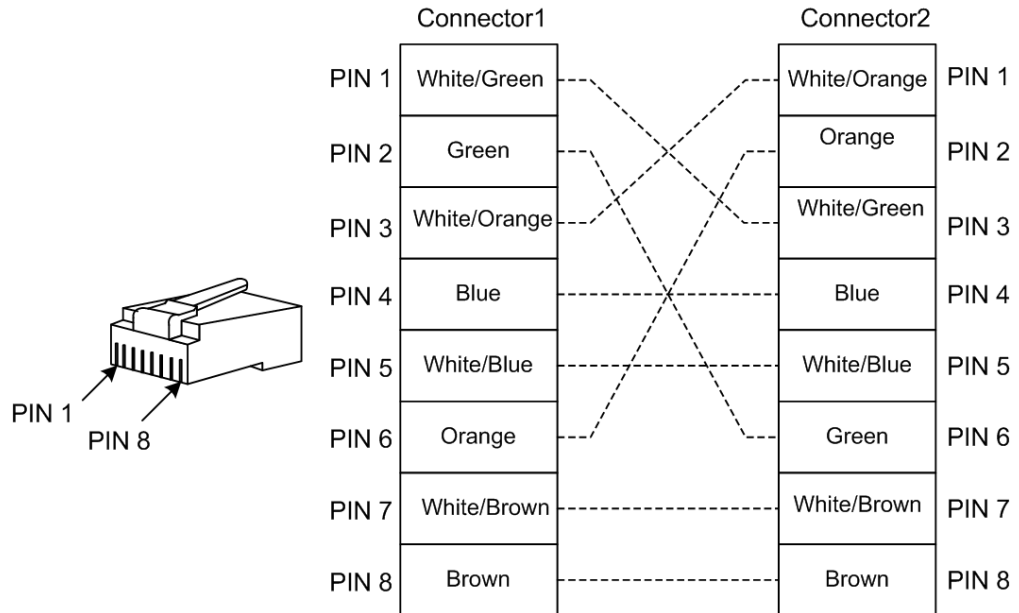
Figure 6-5 shows wiring of 1000 Mbit/s crossover cable.

Figure 6-5 Wiring of 1000 Mbit/s crossover cable
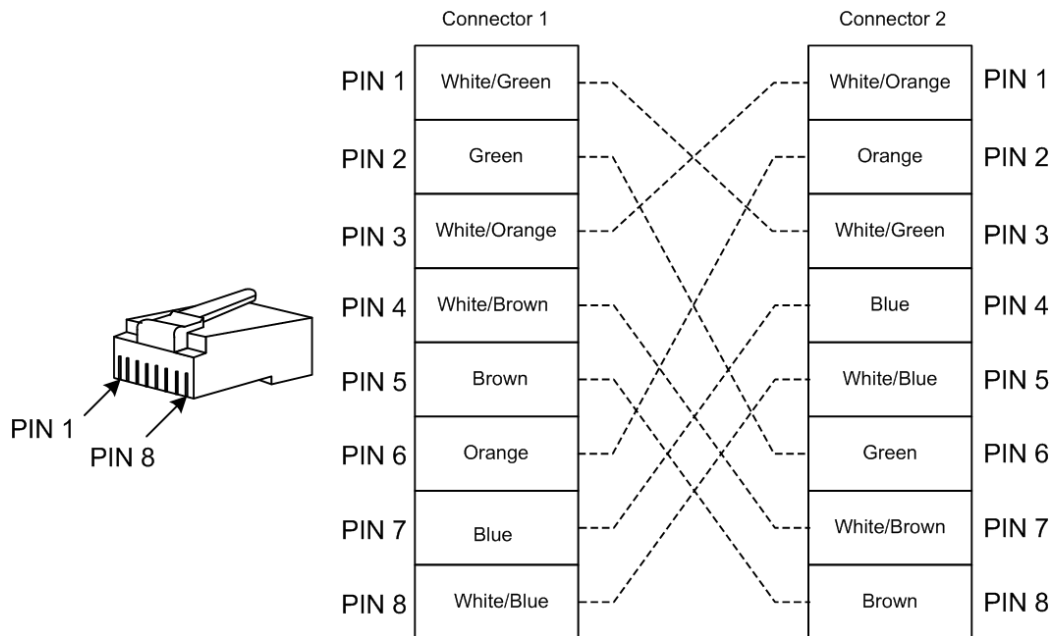
Technical specifications

Table 6-4 lists technical specifications of the Ethernet cable.

Table 6-4 Technical specifications of Ethernet cable

Parameter	Description
Name	CBL-ETH-RJ45/RJ45-D

Parameter	Description
Connector	RJ45 crystal head
Model	Cat 5 or better UTP (UTP-5 or UTP-5e) or Cat 5e STP cable
Number of cores	8
Length	The letter D is the length, indicating that the cable is customized. For example, if the customer requires 2-meter cables, they are named CBL-ETH-RJ45/RJ45-2m.

6.1.3 Ground cable

Introduction

The ground cable is used to connect the ISCOM2600G series switch to the ground.

Appearance

The ground cable is composed of ground terminals and the coaxial cable. The ground terminal is usually an OT non-insulated terminal. The coaxial cable is a yellow/green copper soft flame-retardant conducting wire. Figure 6-6 and Figure 6-7 show the ground cable and OT terminal.

Figure 6-6 Ground cable
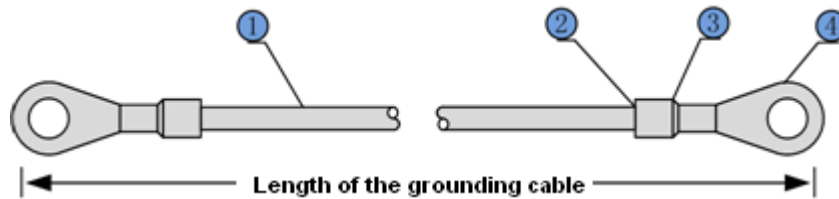
1	Conducting wire	2	Stripped end (connected to the OT terminal)
3	Insulating sheath	4	OT terminal

Figure 6-7 OT terminal
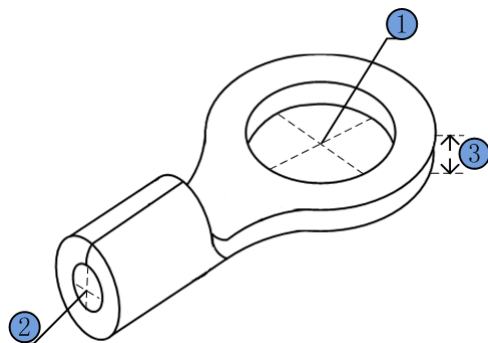
| 1 | Inner diameter of soldering lug | 2 | Inner diameter of sheath | 3 | Thickness of soldering terminal |

Technical specifications

Table 6-5 lists technical specifications of the ground cable.

Table 6-5 Technical specifications of ground cable

Parameter	Description
Model (recommended)	PIL-ground cable-Φ4-1m.
Conducting wire	Yellow/Green multi-strand copper-core conducting wire (1.25 mm^2)
Model	Protective ground round pressed terminal (M4)
Cross-sectional area of the conducting wire	16–15AWG (1.2–1.5 mm^2)
Length	1 m

Note

The ground cable cannot be longer than 30 m and should be as short as possible; otherwise, a ground bar should be used.

6.1.4 DC power cable

Introduction

The DC power cable transmits -48 VDC power to the power interface on the ISCOM2600G series switch, and supplies power for the whole device.

Appearance

A DC power cable is composed of DC connectors and conducting wire, as shown in Figure 6-8.

Figure 6-8 DC power cable
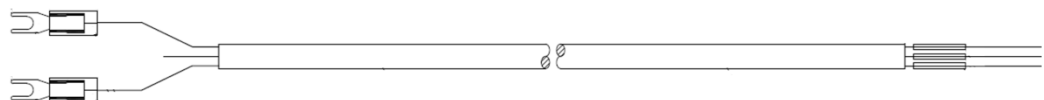
Technical specifications

Table 6-6 lists technical specifications of the DC power cable.

Table 6-6 Technical specifications of DC power cable

Parameter	Description
Name	POL-DC (2 cores)-stripped wire/U-type terminal-0.75 mm^2-1.5 m/RoHS
Connector	U-type terminal (flame-retardant tube)
Cable	• 2-core PVC-sheathed cord • 2 ×0.75mm^2 60227 IEC 53 (RVV) • The stripped wire is equipped with a flame-retardant tube. • +Vin positive wire: brown • -Vin negative wire: blue
Rated voltage (V)	300/500
Insulation and withstanding voltage (sheathe of cable core pairs)	2000 VAC, 5min
Insulation and withstanding voltage (cable core)	1500 VAC, 5min
Certification	CCC
RoHS	Compliant

6.1.5 AC power cable

Introduction

The AC power cable transmits 220 VAC power to the power interface on the ISCOM2600G series switch, and supplies power for the whole device.

The AC power cables used by the ISCOM2600G series switch vary with countries or regions, as lists in Table 6-7.

Table 6-7 AC power cables

Regional standard	Cable
Europe	POL-AC-European-3-pin/C13 connector-0.75mm^2-1.5m/RoHS
America	POL-AC-American-3-pin/C13 connector-18AWG-1.5m/RoHS

Appearance

The AC power cable which meets European standard is composed of the European French mode 3-pin plug and C13 connector, as shown in Figure 6-9.

Figure 6-9 European AC power cable
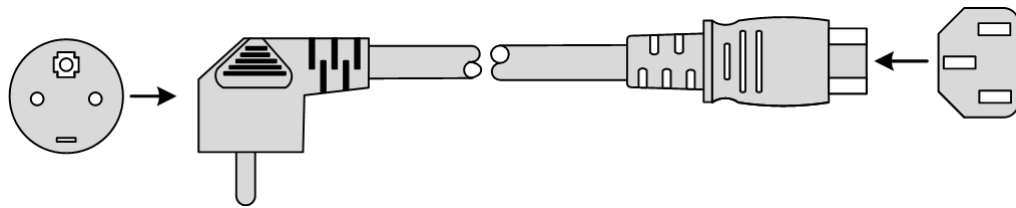
The AC power cable which meets American standard is composed of the American 3-pin plug and C13 connector, as shown in Figure 6-10.

Figure 6-10 American AC power cable
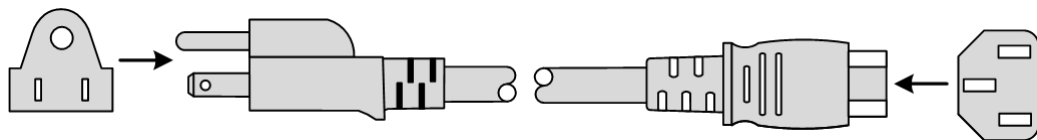
Technical specifications

Table 6-8 lists technical specifications of the European AC power cable.

Table 6-8 Technical specifications of European AC power cable

Parameter		Description
Name		POL-AC-European-3-pin/C13 connector-0.75mm^2-1.5m/RoHS
Color	Outer	Black (PVC insulation layer)
	Inner	Blue (N), brown (L), and yellow/green stripe (E)
Connector 1		IEC60320-C13 connector
Connector 2		European 3-pin plug
Inner conductor cross-sectional area		3×0.75 mm^2
Length		1.5 m

Table 6-9 lists technical specifications of the American AC power cable.

Table 6-9 Technical specifications of American AC power cable

Parameter		Description
Name		American 3-pin-10A/250V-1.5m/RoHS
Color	Outer	Black (PVC insulation layer)
	Inner	White (N), black (L), and green (E)
Connector 1		IEC60320-C13 connector
Connector 2		American 3-pin plug NEMA5-15

Parameter	Description
Inner conductor wire gauge	18 AWG
Length	1.5 m

6.1.6 RJ45 Console cable

Introduction

With a Console cable, you can log in to the ISCOM2600G series switch through the Console interface, and then debug and maintain it through a PC.

The connectors at the two ends of the Console cable are as below:

- RJ45 connector: connected to the Console interface on the ISCOM2600G series switch
- DB9 female connector: connected to the Console interface on the PC

Appearance

Figure 6-11 shows the RJ45 Console cable.

Figure 6-11 RJ45 Console cable
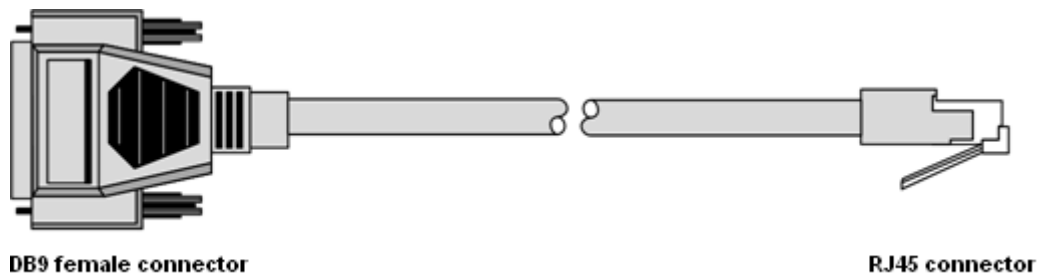
DB9 female connector   **RJ45 connector**

Wiring

Table 6-10 lists wiring of the RJ45 Console interface.

Table 6-10 Wiring of RJ45 Console interface

PIN	PIN definition	
	Switch (RJ45)	Console (DB9)
PIN 1	NC	DCD
PIN 2	NC	RxD
PIN 3	RxD	TxD
PIN 4	GND	DTR
PIN 5	GND	GND

PIN	PIN definition	
	Switch (RJ45)	Console (DB9)
PIN 6	TxD	DSR
PIN 7	NC	RTS
PIN 8	NC	CTS
PIN 9	–	RI

Figure 6-12 shows wiring between the DB9 female connector and the RJ45 Console interface on the ISCOM2600G series switch.

Figure 6-12 Wiring between DB9 female connector and RJ45 Console interface
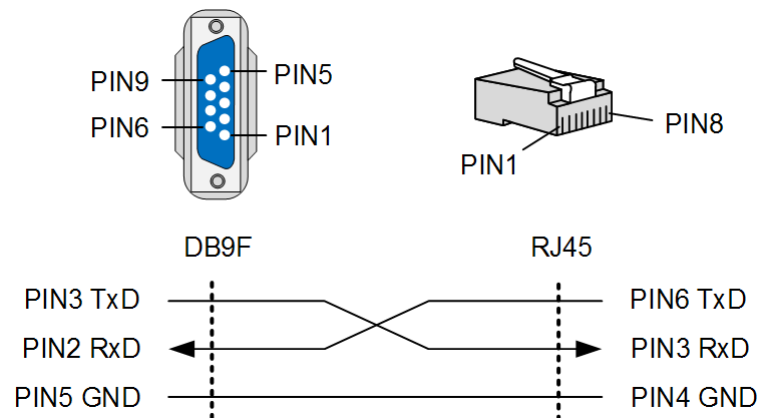
Technical specifications

Table 6-11 lists technical specifications of the RJ45 Console cable.

Table 6-11 Technical specifications of RJ45 Console cable

Parameter	Description
Name	CBL-RS232-DB9F/RJ45-2m
Color	White
Model	Cat 3 UTP cable
Connector	RJ45 connector and DB9 female connector
Number of cores	8
Length	2 m

6.2 SFP modules

The ISCOM2600G series switch supports the following SFP modules:

- 100 Mbit/s SFP optical module
- 100 Mbit/s SFP electrical module
- 1000 Mbit/s SFP optical module
- 1000 Mbit/s SFP electrical module
- 10 Gbit/s SFP+ optical module

100 Mbit/s SFP optical module

Table 6-12 lists parameters of the 100 Mbit/s SFP optical module.

Table 6-12 Parameters of 100 Mbit/s SFP optical module

Model	Wavelength (nm) (Laser type)	Rx type	Tx optical power (dBm)	Minimum overload point (dBm)	Extinction ratio (dB)	Rx sensitivity (dBm)	Transmission distance (km)
USFP-03/M-D-R/SW	1310 (LED/FP)	PIN	-20 to -10	-10	10	-29	2
USFP-03/S1-D-R/SW	1310 (FP)	PIN	-15 to -8	-8	10	-34	15
USFP-03/S2-D-R/SW	1310 (FP/DFB)	PIN	-5 to 0	-8	8.2	-34	40
USFP-03/S3-D-R/SW	1550 (DFB)	PIN	-5 to 0	-10	10	-34	80

100 Mbit/s SFP electrical module

Table 6-13 lists parameters of the 100 Mbit/s SFP electrical module.

Table 6-13 Parameters of 100 Mbit/s SFP electrical module

Model	Application code	Auto-negotiation	Data interface	LOS alarm	Transmission distance (m)
USFP-FE/AN-R/SW	10/100BASE-TX	Supported	SerDes	Supported	100

1000 Mbit/s SFP optical module

Table 6-14 lists parameters of the 1000 Mbit/s SFP optical module.

Table 6-14 Parameters of 1000 Mbit/s SFP optical module

Model	Wavelength (nm) (laser type)	Rx type	Tx optical power (dBm)	Minimum overload point (dBm)	Extinction ratio (dB)	Rx sensitivity (dBm)	Transmission distance (km)
USFP-Gb/M-D-R/SW	850 (VCSEL)	PIN	-9.5 to -3	0	9	-17	0.55
USFP-Gb/S1-D-R/SW	1310 (FP)	PIN	-10 to -3	-3	9	-21	15
USFP-Gb/S2-D-R/SW	1550(DFB)	PIN	-3 to 2	-3	9	-21	40
USFP-Gb/S3-D-R/SW	1550(DFB)	APD	-3 to 2	-9	9	-30	80
USFP-Gb/EX-D-R/SW	1550 (DFB)	APD	0–5	-9	9	-30	120

1000 Mbit/s SFP electrical module

Table 6-15 lists parameters of the 1000 Mbit/s SFP electrical module.

Table 6-15 Parameters of 1000 Mbit/s SFP electrical module

Model	Application code	Auto-negotiation	Data interface	LOS alarm	Transmission distance (m)
USFP-GE-R/SW	1000BASE-T	Not supported	SerDes	Supported	100
USFP-GE/AN-R/SW	10/100/1000BASE-T	Supported	SGMll	Supported	100

10 Gbit/s SFP+ optical module

Table 6-16 lists parameters of the 10 Gbit/s SFP+ optical module.

Table 6-16 Parameters of 10 Gbit/s SFP+ optical module

Model	Wavelength (nm)	Rx type	Tx optical power (dBm)	Maximum optical power	Extinction ratio (dB)	Rx sensitivity	Maximum transmission distance
USFP+-192/M/SW	850	PIN	-7.3 to -1.0	-1.0	3.0	-11.1	0.3
USFP+-192/S1/SW	1310	PIN	-8.2 to 0.5	0.5	3.5	-12.6	10
USFP+-192/S2/SW	1550	PIN	-3.5 to 4.0	4.0	6.0	-16.0	40
USFP+-192/S3/SW	1550	PIN	-1.0 to 4.0	4.0	9.0	-23.0	80

6.3 Terms

A

Access Control List (ACL)

A series of ordered rules composed of permit | deny sentences. These rules are based on the source MAC address, destination MAC address, source IP address, destination IP address, interface ID, etc. The device decides to receive or refuse the packets based on these rules.

Auto-negotiation

The interface automatically chooses the rate and duplex mode according to the result of negotiation. The auto-negotiation process is: the interface adapts its rate and duplex mode to the highest performance according to the peer interface, that is, both ends of the link adopt the highest rate and duplex mode they both support after auto-negotiation.

B

Bracket

It is a component at the flank side of the device, used for installing the chassis into the rack.

D

Digital Subscriber Line Access Multiplexer (DSLAM)	It is a network device, often located in telephone exchanges, that connects multiple customer digital subscriber line (DSL) interfaces to a high-speed digital communications channel using multiplexing techniques.
Dynamic ARP Inspection (DAI)	A security feature that can be used to verify the ARP data packets in the network. With DAI, the administrator can intercept, record, and discard ARP packets with invalid MAC address/IP address to prevent common ARP attacks.
E	
Ethernet Linear Protection Switching (ELPS)	It is an APS protocol, based on ITU-T G.8031 standard, used to protect the Ethernet link. It is an end-to-end protection technology, including two line protection modes: linear 1:1 protection switching and linear 1+1 protection switching.
Ethernet Ring Protection Switching (ERPS)	It is an APS protocol based on ITU-T G.8032 standard, which is a link-layer protocol specially used for the Ethernet ring. In normal conditions, it can avoid broadcast storm caused by the data loop on the Ethernet ring. When the link or device on the Ethernet ring fails, services can be quickly switched to the backup line to enable services to be recovered in time.
F	
Frame	It is a data transmission unit, composed of several parts, each of which has different functions.
Full duplex	In a communication link, both parties can receive and send data concurrently.
H	
Half duplex	In a communication link, both parties can receive or send data at a time.
L	
Link Aggregation	With link aggregation, multiple physical Ethernet interfaces are combined to form a logical aggregation group. Multiple physical links in one aggregation group are taken as a logical link. Link aggregation helps share traffic among member interfaces in an aggregation group. In addition to effectively improving the reliability on links between devices, link aggregation can help gain greater bandwidth without upgrading hardware.
Link-state tracking	Link-state tracking provides an interface linkage scheme, extending the range of link backup. Through monitoring uplinks and synchronizing downlinks, faults of the upstream device can be transferred quickly to the downstream device, and primary/backup switching is triggered. In this way, it avoids traffic loss because the downstream device does not sense faults of the upstream link.

M

Multi-mode Fiber (MMF)	In this fiber, multi-mode optical signals are transmitted.

P

Protection Ground Wire	It is generally a yellow-and-green coaxial cable used for connecting the device to the ground.

Q

Quality of Service (QoS)	A network security mechanism, used to solve problems of network delay and congestion. When the network is overloaded or congested, QoS can ensure that packets of important services are not delayed or discarded and the network runs high efficiently. Depending on the specific system and service, it may relate to jitter, delay, packet loss ratio, bit error ratio, and signal-to-noise ratio.
QinQ	802.1Q in 802.1Q (QinQ), also called Stacked VLAN or Double VLAN, is extended from 802.1Q and defined by IEEE 802.1ad recommendation. This VLAN feature allows the equipment to add a VLAN tag to a tagged packet. The implementation of QinQ is to add a public VLAN tag to a packet with a private VLAN tag, making the packet encapsulated with two layers of VLAN tags. The packet is forwarded over the ISP's backbone network based on the public VLAN tag and the private VLAN tag is transmitted as the data part of the packet. In this way, the QinQ feature enables the transmission of the private VLANs to the peer end transparently. There are two QinQ types: basic QinQ and selective QinQ.

R

RS232	It is an Asynchronous Transfer Mode (ATM), which does not contain hand-shaking signals. It can carry on point-to-point communication with RS232 and RS422 of other stations, featuring transparent transmission, with a maximum rate of 19.2 Kbit/s. Generally, the form of RS232 interface is DB9 or DB25.
Remote Authentication Dial In User Service (RADIUS)	RADIUS refers to a protocol used to authenticate and account users in the network. RADIUS works in client/server mode. The RADIUS server is responsible for receiving users' connection requests, authenticating users, and replying configurations required by all clients to provide services for users.

S

Single-mode Fiber (SMF)	In this fiber, single-mode optical signals are transmitted.

V

Virtual Local Area Network (VLAN)	VLAN is a protocol proposed to solve broadcast and security issues for Ethernet. It divides devices in a LAN into different segments logically rather than physically, thus implementing multiple virtual work groups which are based on Layer 2 isolation and do not affect each other.

6.4 Acronyms and abbreviations

A

ACL	Access Control List
AN	Access Node
APS	Automatic Protection Switching
ARP	Address Resolution Protocol

C

CFM	Connectivity Fault Management
CoS	Class of Service
CPU	Central Processing Unit
CSMA/CD	Carrier Sense Multiple Access/Collision Detection

D

DAI	Dynamic ARP Inspection
DFB	Distributed Feed Back
DiffServ	Differentiated Service
DRR	Deficit Round Robin
DS	Differentiated Services
DSCP	Differentiated Services Code Point
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer

E

EDD	Ethernet Demarcation Device
EFM	Ethernet in the First Mile

ELPS	Ethernet Linear Protection Switching
EMC	Electro Magnetic Compatibility
ERPS	Ethernet Ring Protection Switching
ETS	European Telecommunications Standards
ETSI	European Telecommunications Standards Institute

I

| IGMP | Internet Group Management Protocol |

L

| LLDP | Link Layer Discovery Protocol |
| LOS | Loss of Signal |

M

MEF	Metro Ethernet Forum
MTBF	Mean Time Between Failure
MVR	Multicast VLAN Registration

N

NGN	Next Generation Network
NNM	Network Node Management
NView NNM	NView Network Node Management

P

PHB	Per-Hop Behavior
PPPoE	PPP over Ethernet
PVC	Permanent Virtual Circuit

R

RADIUS	Remote Authentication Dial In User Service
RH	Relative Humidity
RMON	Remote Network Monitoring

S

SLA   Service Level Agreement

SP   Strict-Priority

SSHv2   Secure Shell v2

STP   Spanning Tree Protocol

T

TACACS+   Terminal Access Controller Access Control System

TFTP   Trivial File Transfer Protocol

U

UART   Universal Asynchronous Receiver/Transmitter

UL   Underwriter Laboratories

UNI   User Network Interface

W

WRR   Weight Round Robin

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