INTELBRAS SC 5530 Switch Series

Hardware Information and Specifications

Preface

INTELBRAS SC 5530 Switch Series Hardware Information and Specifications describes product models, technical specifications, ports,and LEDs of the SC 5530 switches.

This preface includes the following topics about the documentation:

- Audience.
- Conventions.
- Documentation feedback.

Audience

This documentation is intended for:

- Network planners.
- Field technical support and servicing engineers.
- Network administrators working with the switches.

Conventions

The following information describes the conventions used in the documentation.

Command conventions

Convention	Description
Boldface	**Bold** text represents commands and keywords that you enter literally as shown.
Italic	*Italic* text represents arguments that you replace with actual values.
[ ]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x | y | ... }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[x | y | ...]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x | y | ... } *	Asterisk marked braces enclose a set of required syntax choices separated by vertical bars, from which you select a minimum of one.
[x | y | ...] *	Asterisk marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.

GUI conventions

Convention	Description
Boldface	Window names, button names, field names, and menu items are in Boldface. For example, the **New User** window opens; click **OK**.
>	Multi-level menus are separated by angle brackets. For example, **File** > **Create** > **Folder**.

Symbols

Convention	Description
WARNING!	An alert that calls attention to important information that if not understood or followed can result in personal injury.
CAUTION:	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.
IMPORTANT:	An alert that calls attention to essential information.
NOTE:	An alert that contains additional or supplementary information.
TIP:	An alert that provides helpful information.

Network topology icons

Convention	Description
	Represents a generic network device, such as a router, switch, or firewall.
	Represents a routing-capable device, such as a router or Layer 3 switch.
	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.
	Represents an access controller, a unified wired-WLAN module, or the access controller engine on a unified wired-WLAN switch.
	Represents an access point.
	Represents a wireless terminator unit.
	Represents a wireless terminator.
	Represents a mesh access point.
	Represents omnidirectional signals.
	Represents directional signals.
	Represents a security product, such as a firewall, UTM, multiservice security gateway, or load balancing device.
	Represents a security module, such as a firewall, load balancing, NetStream, SSL VPN, IPS, or ACG module.

Examples provided in this document

Examples in this document might use devices that differ from your device in hardware model, configuration, or software version. It is normal that the port numbers, sample output, screenshots, and other information in the examples differ from what you have on your device.

Contents

1 Product models and technical specifications

Product models

Table1-1 Switch series and models

Switch series	Model
SC 5530 switch series	SC 5530-48Y-8H
	SC 5530-24Y-8H

Technical specifications

Table1-2 Technical specifications

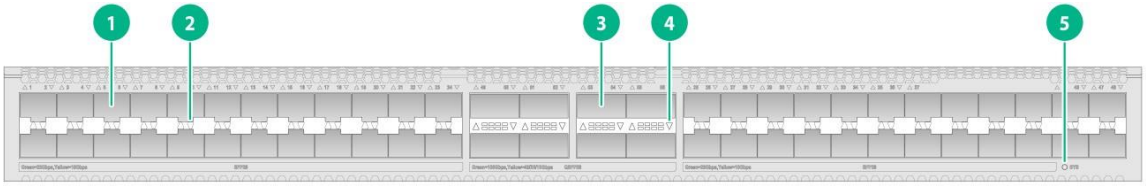
Item	SC 5530-48Y-8H	SC 5530-24Y-8H
Dimensions (H × W × D)	44 × 440 × 400 mm (1.73 × 17.32 × 15.75 in)	44 × 440 × 400 mm (1.73 × 17.32 × 15.75 in)
Weight	≤ 7.6 kg (16.75 lb)	≤ 7.3 kg (16.09 lb)
Console port RJ45	1 × serial console port	
USB port	1	
Management Ethernet port 10/100/1000	1	
SFP+ port	N/A	N/A
SFP28 port	48	24
QSFP28 port	8	8
Power supply slot	2	
Fan tray slot	5	
Input voltage	AC input for the PSR250-12A/PSR250-12A1 power supply: • Rated voltage range: 100 VAC to 240 VAC @ 50 Hz or 60 Hz • Max voltage range: 90 VAC to 290 VAC @ 47 Hz to 63 Hz HVDC input for the PSR250-12A/PSR250-12A1 power supply: • Rated voltage: 240 VDC • Max voltage range: 180 VDC to 320 VDC PSR450-12D power supply: • Rated voltage range: –48 VDC to –60 VDC	

Item	SC 5530-48Y-8H	SC 5530-24Y-8H
	• Max voltage range: –36 VDC to –72 VDC DC power source for the PSR450-12D power supply: –48 VDC power source in the equipment room or an RPS (INTELBRAS RPS1600-A)	
Minimum power consumption	Single power input: 76 W Dual power inputs: 83 W	Single power input: 76 W Dual power inputs: 83 W
Maximum power consumption	Single power input: 223 W Dual power inputs: 227 W	Single power input: 188 W Dual power inputs: 193 W
Melting current of power supply fuse	PSR250-12A/PSR250-12A1 power supply: 6.3 A/250 V PSR450-12D power supply: 20 A/125 V	
Operating temperature	–5°C to +45°C (23°F to 113°F)	
Operating humidity	5% RH to 95% RH, noncondensing	

2 Chassis views

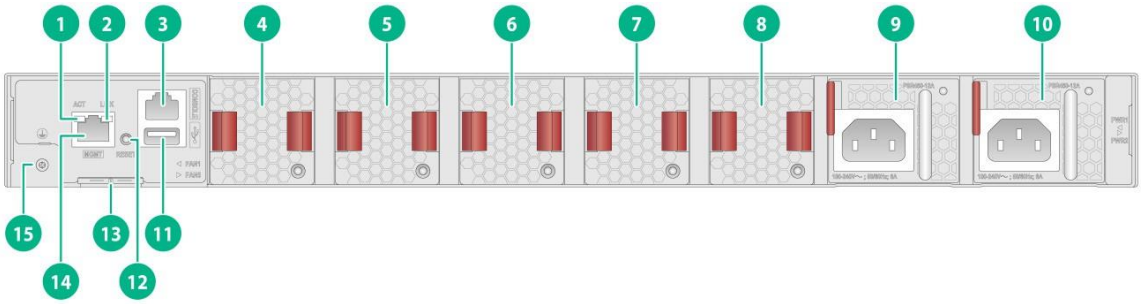
SC 5530-48Y-8H

Figure2-1 Front panel



(1) SFP28 port	(2) SFP28 port LED
(3) QSFP28 port	(4) QSFP28 port LED
(5) System status LED (SYS)	

Figure2-2 Rear panel



(1) Management Ethernet port LED (ACT)	(2) Management Ethernet port LED (LINK)
(3) Console port	(4) Fan tray 1
(5) Fan tray 2	(6) Fan tray 3
(7) Fan tray 4	(8) Fan tray 5
(9) Power supply 1	(10) Power supply 2
(11) USB port	(12) Reset button (RESET)
(13) Serial label pull tab	(14) Management Ethernet port (MGMT)
(15) Grounding screw	

The SN serial number and MAC address of the SC 5530-48Y-8H switch can be found on the serial label pull tab.

The SC 5530-48Y-8H switch came with power supply slot 1 empty and power supply slot 2 installed with a filler panel. You can install one or two power supplies for the switch as required. In Figure2-2, two PSR250-12A1 AC power supplies are installed in the power supply slots.

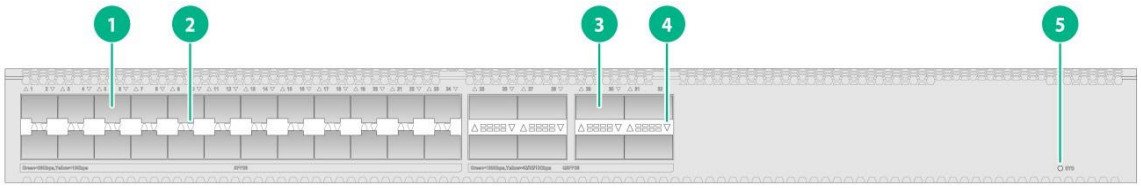
The SC 5530-48Y-8H switch came with five fan tray slots empty. You must install five fan trays of the same model for the switch. In Figure2-2, five LSPM1FANSB-SN fan trays are installed in the fan tray slots.

The SC 5530-48Y-8H switch provides a reset button on the rear panel for you to reset the switch.

To use both the console port and USB port on the SC 5530-48Y-8H switch, use a small-sized USB drive or a USB extension cable.

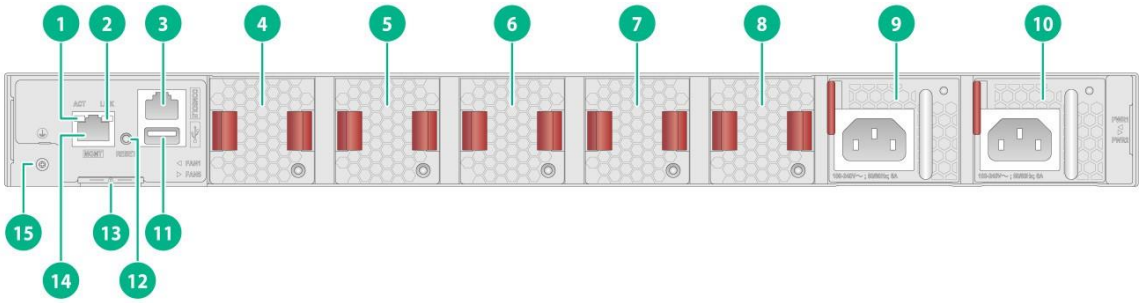
SC 5530-24Y-8H

Figure2-3 Front panel



(1) SFP28 port	(2) SFP28 port LED
(3) QSFP28 port	(4) QSFP28 port LED
(5) System status LED (SYS)	

Figure2-4 Rear panel



(1) Management Ethernet port LED (ACT)	(2) Management Ethernet port LED (LINK)
(3) Console port	(4) Fan tray 1
(5) Fan tray 2	(6) Fan tray 3
(7) Fan tray 4	(8) Fan tray 5
(9) Power supply 1	(10) Power supply 2
(11) USB port	(12) Reset button (RESET)
(13) Serial label pull tab	(14) Management Ethernet port (MGMT)
(15) Grounding screw	

The SN serial number and MAC address of the SC 5530-24Y-8H switch can be found on the serial label pull tab.

The SC 5530-24Y-8H switch came with power supply slot 1 empty and power supply slot 2 installed with a filler panel. You can install one or two power supplies for the switch as required. In Figure2-6, two PSR250-12A1 AC power supplies are installed in the power supply slots.

The SC 5530-24Y-8H switch came with five fan tray slots empty. You must install five fan trays of the same model for the switch. In Figure2-6, five LSPM1FANSB-SN fan trays are installed in the fan tray slots.

The SC 5530-24Y-8H switch provides a reset button on the rear panel for you to reset the switch.

To use both the console port and USB port on the SC 5530-24Y-8H switch, use a small-sized USB drive or a USB extension cable.

3 Removable components and compatibility matrixes

The switch supports removable components. Table3-1 describes the removable components available for the switch.

Table3-1 Compatibility matrix between switches and removable components

FRU model	SC 5530-48Y-8H SC 5530-24Y-8H
Removable power supplies	
PSR250-12A	Supported
PSR250-12A1	Supported
PSR450-12D	Supported
Removable fan trays	
LSPM1FANSA-SN	Supported
LSPM1FANSB-SN	Supported

The power supplies support asset management. You can use the **display device manuinfo** command to view the name, sequence number, and vendor of the power supply you have installed on the switch.

The switch provides two power supply slots. One power supply can meet the power requirement of the switch. You can install two power supplies on the switch for 1+1 redundancy. Do not install power supplies of different models on the same switch.

The switch uses removable fan trays. Do not power on the switch if it does not have five fan trays of the same model installed.

Removable power supplies

Table3-2 Power supplies available for the switch

Power supply model	AC or DC input	Specifications
PSR250-12A PSR250-12A1	AC input	• Rated input voltage range: 100 to 240 VAC @ 50/60 Hz • Max input voltage range: 90 to 290 VAC @ 47 to 63 Hz • Max output power: 250 W
	HVDC input	• Rated input voltage: 240 VDC • Max input voltage range: 180 to 320 VDC • Max output power: 250 W
PSR450-12D	DC input	• Rated input voltage range: –48 VDC to –60 VDC

Power supply model	AC or DC input	Specifications
		• Max input voltage range: –36 VDC to –72 VDC • Max output power: 450 W

Removable fan trays

Table3-3 Fan tray specifications

Fan tray model	Item	Specifications
• LSPM1FANSA-SN (from the power supply side to the port side) • LSPM1FANSB-SN (from the port side to the power supply side)	Quantity	One 40 × 40.6 × 105 mm (1.57 × 1.60 × 4.13 in) fan
	Fan speed	20000 R.P.M
	Max airflow	20 CFM (0.57 m^3/min)
	Input voltage	12 V
	Power consumption	9.8 W
	Documentation reference	*LSPM1FANSA-SN & LSPM1FANSB-SN Fan Trays User Guide*

4 Ports and LEDs

Ports

Console port

Table4-1 Console port specifications

Item	Specification
Connector type	RJ-45
Compliant standard	EIA/TIA-232
Port transmission rate	9600 bps (default) to 115200 bps
Services	• Provides connection to an ASCII terminal • Provides connection to the serial port of a local PC running terminal emulation program
Compatible devices	All device models

Management Ethernet port

Table4-2 Management Ethernet port specifications

Item	Specification
Connector type	RJ-45
Port transmission rate	• 10 Mbps, half/full duplex • 100 Mbps, half/full duplex • 1000 Mbps, full duplex • MDI/MDI-X autosensing
Transmission medium	Category-5 or above twisted pair cable
Max transmission distance	100 m (328.08 ft)
Compliant standard	IEEE 802.3i, 802.3u, and 802.3ab
Functions and services	Switch software and Boot ROM upgrade, network management
Compatible devices	All device models
Usage guidelines	Do not forcibly configure a management Ethernet port to operate at 1000 Mbps in full duplex mode.

USB port

Table4-3 USB port specifications

Item	Specification
Interface type	USB 2.0

Item	Specification
Compliant standard	OHC
Port transmission rate	Uploads and downloads data at a rate up to 480 Mbps
Functions and services	Accesses the file system on the flash of the switch, for example, to upload or download application and configuration files
Compatible devices	All device models

NOTE:

USB devices from different vendors vary in compatibilities and drivers. INTELBRAS does not guarantee correct operation of USB devices from other vendors on the switch. If a USB device fails to operate on the switch, replace it with one from another vendor.

SFP+ port

Table4-4 SFP+ port specifications

Item	Specification
Interface type	SFP+ port

NOTE:

The INTELBRAS transceiver modules and network cables are subject to change over time. For the most recent list of INTELBRAS transceiver modules and cables, contact INTELBRAS Support.

SFP28 port

Table4-5 SFP28 port specifications

Item	Specification
Interface type	SFP28 port

NOTE:

The INTELBRAS transceiver modules and cables are subject to change over time. For the most recent list of INTELBRAS transceiver modules and cables, contact your INTELBRAS Support.

QSFP28 ports

Table4-6 QSFP28 port specifications

Item	Specification
Interface type	QSFP28 port

NOTE:

The INTELBRAS transceiver modules and cables are subject to change over time. For the most recent list of INTELBRAS transceiver modules and cables, contact your INTELBRAS Support.

LEDs

System status LED

The system status LED shows the operating status of the switch.

Table4-7 System status LED description

LED mark	Status	Description
SYS	Steady green	The switch has started correctly.
	Flashing green (1 Hz)	The switch is performing power-on self test (POST).
	Steady red	The switch has failed the POST or is faulty.
	Off	The switch is powered off.

Management Ethernet port LED

Table4-8 Management Ethernet port LED description

LED mark	Status	Description
LINK	Off	No link is present on the port
	Steady green	The port is operating at 10/100/1000 Mbps.
ACT	Off	The port is not receiving or sending data.
	Flashing yellow	The port is sending or receiving data.

QSFP28 port LED

Table4-9 QSFP28 port LED description

LED status	Description
Steady green	A transceiver module or cable has been correctly installed. The port has a link and is operating at 100 Gbps.
Flashing green	The port is sending or receiving data at 100 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at 10 Gbps, 25 Gbps, or 40 Gbps.
Flashing yellow	The port is sending or receiving data at 10 Gbps, 25 Gbps, or 40 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

SFP28 port LEDs

Table4-10 SFP28 port LED description

LED status	Description
Steady green	A transceiver module or cable has been correctly installed. The port has a link and is operating at 25 Gbps.
Flashing green	The port is sending or receiving data at 25 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at 1Gbps or 10 Gbps.
Flashing yellow	The port is sending or receiving data at 1 Gbps or 10 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

SFP+ port LED

Table4-11 SFP+ port LED description

SFP+ port LED status	Description
Steady green	A transceiver module or cable has been correctly installed. A link is present on the port and the port is operating at 10 Gbps.
Flashing green	The port is sending or receiving data at 10 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. A link is present on the port and the port is operating at 1 Gbps.
Flashing yellow	The port is sending or receiving data at 1 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

Status LED on a power supply

The power supplies each have a LED to indicate the power supply operating status. For more information, see the user manual for the power supply.

Fan tray status LED on a fan tray

The LSPM1FANSA-SN and LSPM1FANSB-SN fan trays each have a LED to indicate the fan tray operating status.

Table4-12 Fan tray status LED description

Status	Description
On	The fan tray is faulty.
Off	The fan tray is operating correctly.

5 Cooling system

To dissipate heat timely and enhance system stability, the switch uses a high-performance cooling system. Consider the site ventilation design when you plan the installation site for the switch.

The switch uses removable fan trays and provides airflow from the port side to the power supply side or from the power supply side to the port side by using different types of fan trays. You must install five fan trays of the same model for the switch. Table5-1 describes the fan trays available for the switch.

Table5-1 Fan trays available for the switch

Switch model	Fan tray model	Airflow direction
SC 5530-48Y-8H SC 5530-24Y-8H	LSPM1FANSA-SN	From the power supply side to the port side
	LSPM1FANSB-SN	From the port side to the power supply side

Figure5-1 Airflow direction for LSPM1FANSA-SN (SC 5530-48Y-8H)

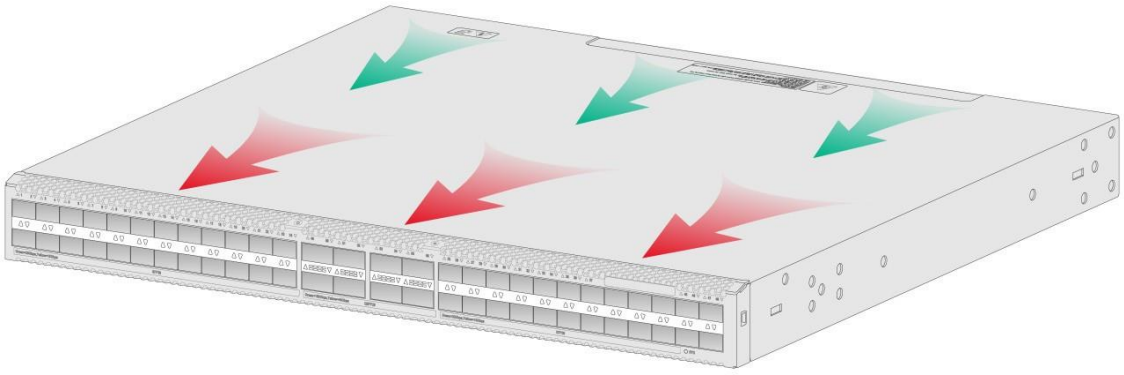


Figure5-2 Airflow direction for LSPM1FANSB-SN (SC 5530-48Y-8H)