

# HD5524P-2Q4X-SI SERIES SWITCHES

## DATASHEET

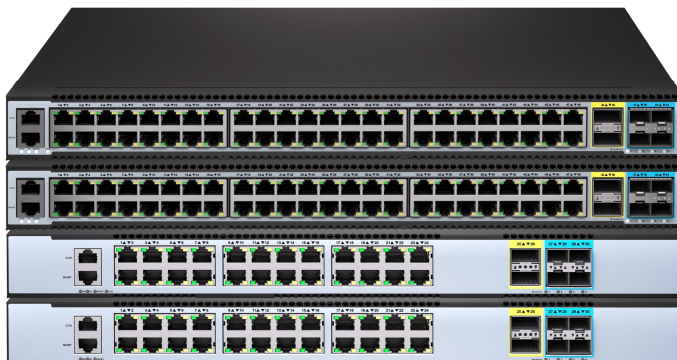
High Performance Enterprise and Campus Network Switch

Version:V1.1

Release Date:2024/10/12

### Product Overview

The HD5500 Series switches designed on a domestic new generation switch Chip, which called [VastLakes Series Chip platform](#) . With 48 x 1G or 24 x 1G high speed ports and rich features, these switches will perfectly meets the requirements of Metro, Enterprise and campus networks.



### Key features of the HD5500 Series Switches

- Varied port types support 100M/1G/25G/40G ports to meet different network requirement
- Implementing Vxlan and BGP protocols to build EVPN applications for Enterprise and Campus scenario.
- Switch-to-switch encryption using MACsec (Media Access Control Security) AES-CMAC.
- Precision Timing Protocol.
- Rich L2/L3 features like IPv6, OSPF, BGP, PIM, etc.

The HD5500 Series switches provide various power supply solutions for customers choosing, fixed single power supply, fixed redundant power supplies, and redundant hot-swappable power supplies (AC and DC are both available). The Fan solutions also have two bays with Field replaceable fan modules and build in fans. Generally, air flow of HD5500 Series is front to rear (AFO), and some of models can do customization of rear to front (AFI) airflow.

**Table 1: Feasible PSU and airflow of HD5500 Series**

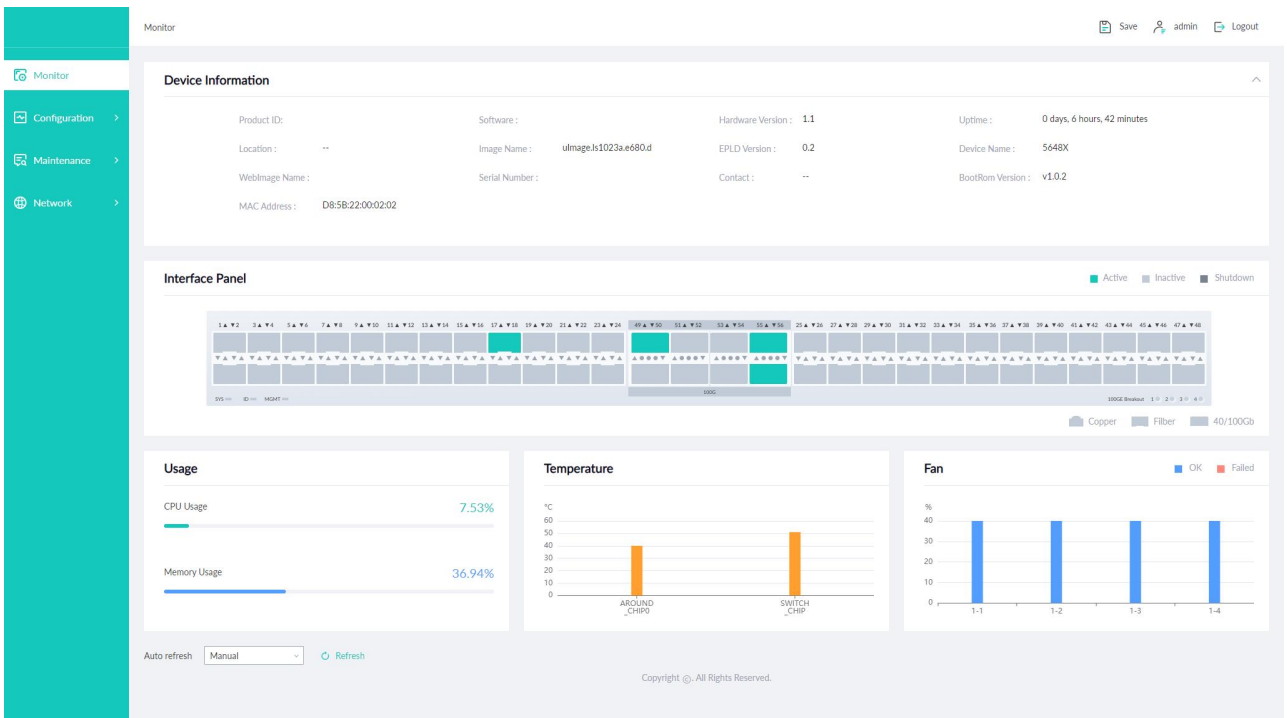
Items	AC	DC	PoE Port	AFO	AFI	Power Input	FAN
H5548PB-2Q4X-EI	○	○	48	○	X	2	2

Items	AC	DC	PoE Ports	AFO	AFI	Power Input	FAN
HD5548P-2Q4X-SI	○	X	48	○	X	1	4
HD5548P-2Q4X-EI	○	○	48	○	X	2	2
HD5548-2Q4X-SI	○	X	0	○	X	1	4
HD5548-2Q4X-EI	○	○	0	○	○	2	2
HD5524PB-2Q4X-EI	○	○	24	○	○	2	2
HD5524P-2Q4X-SI	○	X	24	○	X	1	4
HD5524P-2Q4X-EI	○	○	24	○	X	2	2
HD5524-2Q4X-SI	○	X	0	○	X	1	4
HD5524-2Q4X-EI	○	○	0	○	○	2	2

The HD5500 Series switches support varied management ways, include console port / in-band network ports / out-of-band network port. Support SNMP v1/v2/v3, Support CLI (Command Line Interface), web management, Telnet and FTP connection. Support OAM to make management more convenient, and support SSH2.0, SSL, etc. to ensure security of management.

### Visual WEB GUI

HOS allows you to quickly configure common configuration items using a visual WEB GUI, which lowers the application threshold for users.



The HD5500 family of Ethernet switches consists of the following models:

**Table 2: Family of the HD5500 Series switches**

Models	Ethernet Ports	Management	PSU 1/PSU 2	Cooling
HD5548PB-2Q4X-EI	48 x 10/100/1000Mb BaseT(PoE++ 90W) + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	1200W AC/1200W AC hot-swappable Modules	2 x hot-swappable Fan Modules (Front to Rear airflow)
HD5548P-2Q4X-SI	48 x 10/100/1000Mb BaseT(PoE+ 30W) + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	Fixed one power supply	4 x fixed Fans (Front to Rear airflow)
HD5548P-2Q4X-EI	48 x 10/100/1000Mb BaseT(PoE+ 30W) + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	500W AC/500W AC hot-swappable Modules	2 x hot-swappable Fan Modules (Front to Rear airflow)
HD5548-2Q4X-SI	48 x 10/100/1000Mb BaseT + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	Fixed one power supply	4 x fixed Fans (Front to Rear airflow)
HD5548-2Q4X-EI	48 x 10/100/1000Mb BaseT + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	120W AC/120W AC hot-swappable Modules	2 x hot-swappable Fan Modules (Front to Rear airflow)
S5524PB-2Q4X-EI	24 x 10/100/1000Mb BaseT(PoE++ 90W) + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	500W AC/500W AC hot-swappable Modules	2 x hot-swappable Fan Modules (Front to Rear airflow)
S5524P-2Q4X-SI	24 x 10/100/1000Mb BaseT(PoE+ 30W) + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	Fixed one power supply	4 x fixed Fans (Front to Rear airflow)
S5524P-2Q4X-EI	24 x 10/100/1000Mb BaseT(PoE+ 30W) + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	500W AC/500W AC hot-swappable Modules	2 x hot-swappable Fan Modules (Front to Rear airflow)
S5524-2Q4X-SI	24 x 10/100/1000Mb BaseT + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	Fixed one power supply	4 x fixed Fans (Front to Rear airflow)
S5524-2Q4X-EI	24 x 10/100/1000Mb BaseT + 4 x 25G SFP28 + 2 x 40G QSFP+	Console: RJ45 RS232 Ethernet: 1G Port	120W AC/120W AC hot-swappable Modules	2 x hot-swappable Fan Modules (Front to Rear airflow)

## HD5500 Physical Specifications

### Package Switch capacity (Gbps)

- HD5548PB-2Q4X-EI: 456Gbps (bidirectional)
- HD5548P-2Q4X-SI: 456Gbps (bidirectional)
- HD5548P-2Q4X-EI: 456Gbps (bidirectional)
- HD5548-2Q4X-SI: 456Gbps (bidirectional)
- HD5548-2Q4X-EI: 456Gbps (bidirectional)
- HD5524PB-2Q4X-EI: 408Gbps(bidirectional)
- HD5524P-2Q4X-SI: 408Gbps(bidirectional)
- HD5524P-2Q4X-EI: 408Gbps(bidirectional)
- HD5524-2Q4X-SI: 408Gbps(bidirectional)
- HD5524-2Q4X-EI: 408Gbps(bidirectional)

### Layer 2/Layer 3 Throughput (Mpps)

- HD5548PB-2Q4X-EI: 678.53Mpps (bidirectional)
- HD5548P-2Q4X-SI: 678.53Mpps (bidirectional)
- HD5548P-2Q4X-EI: 678.53Mpps (bidirectional)
- HD5548-2Q4X-SI: 678.53Mpps (bidirectional)
- HD5548-2Q4X-EI: 678.53Mpps (bidirectional)
- HD5524PB-2Q4X-EI: 607.10Mpps (bidirectional)
- HD5524P-2Q4X-SI: 607.10Mpps (bidirectional)
- HD5524P-2Q4X-EI: 607.10Mpps (bidirectional)
- HD5524-2Q4X-SI: 607.10Mpps (bidirectional)
- HD5524-2Q4X-EI: 607.10Mpps (bidirectional)

### Weight (Net Weight/Gross Weight)

- HD5548PB-2Q4X-EI: 8.36/10.6kg
- HD5548P-2Q4X-SI: 5.38/7.62kg
- HD5548P-2Q4X-EI: 7.76/10kg
- HD5548-2Q4X-SI: 4.09/6.33kg
- HD5548-2Q4X-EI: 7.16/9kg
- HD5524PB-2Q4X-EI: 7.36/9.6kg
- HD5524P-2Q4X-SI: 6.96/9.2kg
- HD5524P-2Q4X-EI: 7.36/9.6kg
- HD5524-2Q4X-SI: 3.9/6.14kg
- HD5524-2Q4X-EI: 6.67/9kg

### Dimensions (W x H x D) with package

- HD5548PB-2Q4X-EI: 55.7 x 15 x 49.5cm
- HD5548P-2Q4X-SI: 55.7 x 15 x 49.5cm
- HD5548P-2Q4X-EI: 55.7 x 15 x 49.5cm
- HD5548-2Q4X-SI: 55.7 x 15 x 49.5cm
- HD5548-2Q4X-EI: 55.7 x 15 x 49.5cm
- HD5524PB-2Q4X-EI: 55.7 x 15 x 49.5cm
- HD5524P-2Q4X-SI: 55.7 x 15 x 49.5cm
- HD5524P-2Q4X-EI: 55.7 x 15 x 49.5cm
- HD5524-2Q4X-SI: 55.7 x 15 x 49.5cm
- HD5524-2Q4X-EI: 55.7 x 15 x 49.5cm

### Dimensions (W x H x D) without package

- HD5548PB-2Q4X-EI: 44.2x 4.4 x 42cm
- HD5548P-2Q4X-SI: 44.2 x 4.4 x 32.1cm
- HD5548P-2Q4X-EI: 44.2 x 4.4 x 41cm
- HD5548-2Q4X-SI: 44.2 x 4.4 x 32.1cm
- HD5548-2Q4X-EI: 44.2 x 4.4 x 41cm
- HD5524PB-2Q4X-EI: 44.2 x 4.4 x 41cm
- HD5524P-2Q4X-SI: 44.2 x 4.4 x 37.1cm
- HD5524P-2Q4X-EI: 44.2 x 4.4 x 37.1cm
- HD5524-2Q4X-SI: 44.2 x 4.4 x 32cm
- HD5524-2Q4X-EI: 44.2 x 4.4 x 41cm

### Cooling [CFM]-Total Maximum airflow

- HD5548PB-2Q4X-EI: 72.78
- HD5548P-2Q4X-SI: 44.30
- HD5548P-2Q4X-EI: 78.28
- HD5548-2Q4X-SI: 46.48
- HD5548-2Q4X-EI: 46.48
- HD5524PB-2Q4X-EI: 75.27
- HD5524P-2Q4X-SI: 46.48
- HD5524-2Q4X-SI: 46.48
- HD5524-2Q4X-EI: 46.48

**Power consumption**

Worst case, all ports used, line-rate traffic

- HD5548PB-2Q4X-EI: 72W
- HD5548P-2Q4X-SI: 86W
- HD5548P-2Q4X-EI: 70W
- HD5548-2Q4X-SI: 72W
- HD5548-2Q4X-EI: 60W
- HD5524PB-2Q4X-EI: 54W
- HD5524P-2Q4X-SI: 70W
- HD5524-2Q4X-SI: 51W
- HD5524-2Q4X-EI: 60W

**Typical power consumption**

- HD5548PB-2Q4X-EI: 61W
- HD5548P-2Q4X-SI: 84W
- HD5548P-2Q4X-EI: 58W
- HD5548-2Q4X-SI: 69W
- HD5548-2Q4X-EI: 59W
- HD5524PB-2Q4X-EI: 53W
- HD5524P-2Q4X-SI: 69W
- HD5524-2Q4X-SI: 51W
- HD5524-2Q4X-EI: 36W

**CPU**

- Dual-core processor, ARM A53 on all models

**Memory**

- eMMC: 8GB on all models
- DRAM: 2GB on all models

**Environmental ranges**

- Operating temperature: 0°C to 40°C
- Storage temperature: -40°C to 70°C
- Running Humidity: 10% to 90% (No condensation)
- Store Humidity: 5 to 95% (No condensation)

**Operating altitude**

- HD5548PB-2Q4X-EI: ≤5000m
- HD5548P-2Q4X-SI: ≤5000m
- HD5548P-2Q4X-EI: ≤5000m
- HD5548-2Q4X-SI: ≤2000m
- HD5548-2Q4X-EI: ≤5000m
- HD5524PB-2Q4X-EI: ≤5000m
- HD5524P-2Q4X-SI: ≤5000m
- HD5524P-2Q4X-EI: ≤5000m
- HD5524-2Q4X-SI: ≤2000m
- HD5524-2Q4X-EI: ≤5000m

**Temperature alarm**

- Alarm threshold: 50°C

**MTBF**

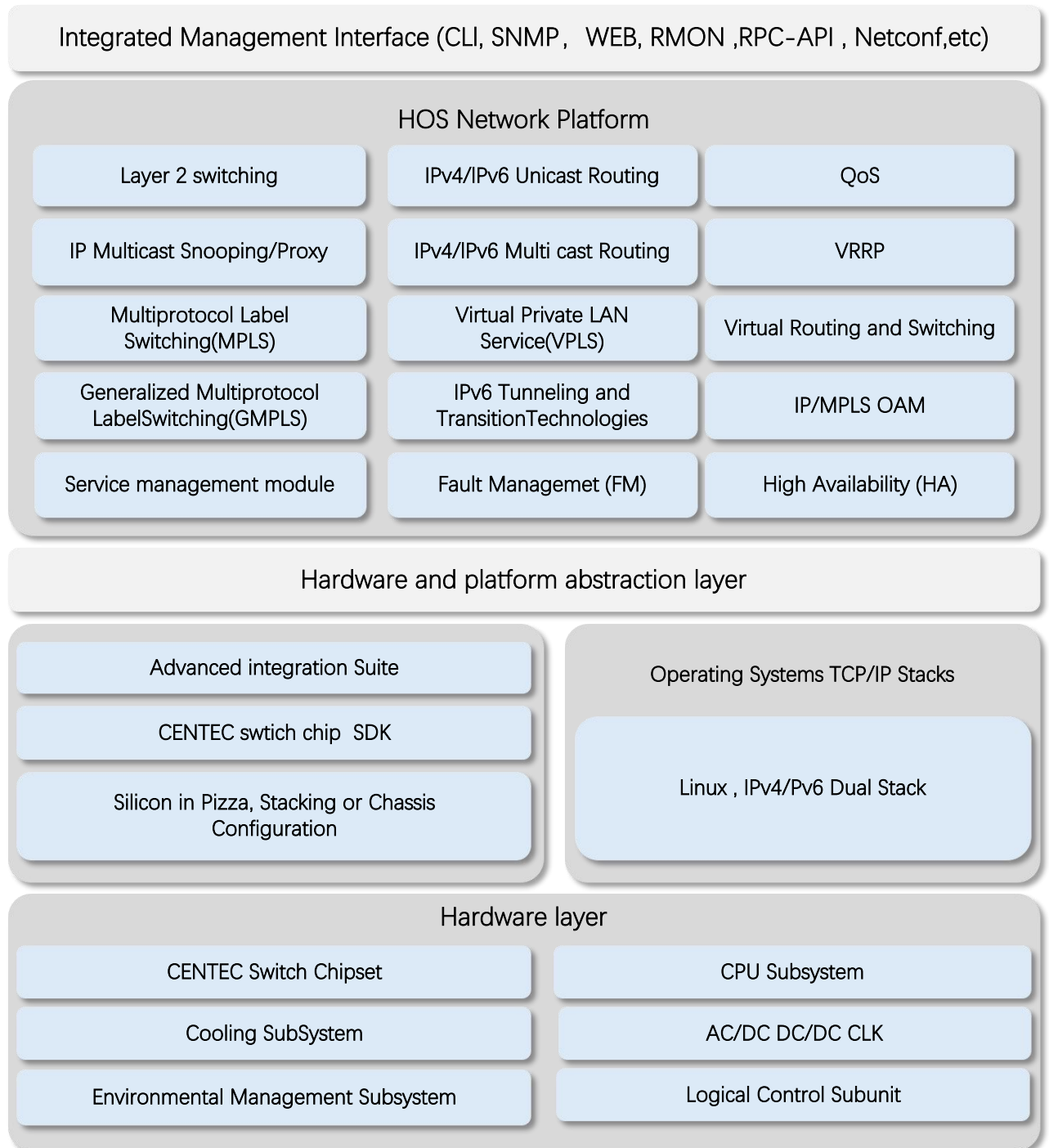
- EI (Swapable PSU and FAN): ≥90000h (~10.3 Years)
- SI (Fixed PSU and FAN): ≥70000h (~8.0 Years)

**PoE Power Budget**

- HD5548PB-2Q4X-EI: 2200W
- HD5548P-2Q4X-SI: 780W
- HD5548P-2Q4X-EI: 740W
- HD5524PB-2Q4X-EI: 740W
- HD5524P-2Q4X-SI: 380W
- HD5524P-2Q4X-EI: 330W

## HD5500 Software Specifications

HONDAO implements a unified software platform



- \* All HONDAO switches use a normalized software platform and image package file
- \* Unified software version iteration plan
- \* Unified user experience

## Ordering Information

### HD5500 Series

Items	Description
HD5548PB-2Q4X-EI	1G Enterprise and Campus Network switch,with 48*1G Base-T(PoE++ 90W),4*25G SFP28,2*40G QSFP+,Dual power supply modules, 2 hot-swap fan modules
HD5548P-2Q4X-SI	1G Enterprise and Campus Network switch,with 48*1G Base-T(PoE+ 30W),4*25G SFP28,2*40G QSFP+,One fixed power supply,4 Fixed fans
HD5548P-2Q4X-EI	1G Enterprise and Campus Network switch,with 48*1G Base-T(PoE+ 30W),4*25G SFP28,2*40G QSFP+,Dual power supply modules, 2 hot-swap fan modules
HD5548-2Q4X-SI	1G Enterprise and Campus Network switch,with 48*1G Base-T,4*25G SFP28,2*40G QSFP+,One fixed power supply,4 Fixed fans
HD5548-2Q4X-EI	1G Enterprise and Campus Network switch,with 48*1G Base-T,4*25G SFP28,2*40G QSFP+,Dual power supply modules, 2 hot-swap fan modules
HD5524PB-2Q4X-EI	1G Enterprise and Campus Network switch, with 24*1G Base-T (PoE++ 90W),4*25G SFP28,2*40G QSFP+, Dual power supply modules, 2 hot-swap fan modules
HD5524P-2Q4X-SI	1G Enterprise and Campus Network switch,with 24*1G Base-T(PoE+ 30W),4*25G SFP28,2*40G QSFP+,One fixed power supply,4 Fixed fans
HD5524P-2Q4X-EI	1G Enterprise and Campus Network switch, with 24*1G Base-T(PoE+ 30W),4*25G SFP28,2*40G QSFP+, Dual power supply modules, 2 hot-swap fan modules
HD5524-2Q4X-SI	1G Enterprise and Campus Network switch,with 24*1G Base-T,4*25G SFP28,2*40G QSFP+,One fixed power supply,4 Fixed fans
HD5524-2Q4X-EI	1G Enterprise and Campus Network switch, with 24*1G Base-T,4*25G SFP28,2*40G QSFP+, Dual power supply modules, 2 hot-swap fan modules

AC/DC Power Supplies use for HD5500 Series EI model

Items	Description
PSU-120-AC-AFO	HD5500 Series 120W AC power supply (Front to Rear Airflow)
PSU-120-DC-AFO	HD5500 Series 120W DC power supply (Front to Rear Airflow)
PSU-500-AC-AFO	HD5500 Series 500W AC power supply (Front to Rear Airflow)
PSU-500-DC-AFO	HD5500 Series 500W DC power supply (Front to Rear Airflow)
PSU-550-AC-AFO	HD5500 Series 550W AC power supply (Front to Rear Airflow)
PSU-550-DC-AFO	HD5500 Series 550W DC power supply (Front to Rear Airflow)
PSU-1200-AC-AFO	HD5500 Series 1200W AC power supply (Front to Rear Airflow)
PSU-1200-DC-AFO	HD5500 Series 1200W DC power supply (Front to Rear Airflow)

Software Licenses

Items	Description
Software License	EB, Basic L3 software features, Preinstalled
Software License	MS, L3 enhance features software license key



Accessory of S5500 Series

Items	Front Mounting	Rear Mounting	Screw	Power Cord	Console (DB9 to RJ45)
HD5548PB-2Q4X-EI	2	2	14	2	1
HD5548P-2Q4X-SI	2	/	14	1	1
HD5548P-2Q4X-EI	2	2	14	2	1
HD5548-2Q4X-SI	2	/	14	1	1
HD5548-2Q4X-EI	2	2	14	2	1
HD5524PB-2Q4X-EI	2	2	14	2	1
HD5524P-2Q4X-SI	2	/	14	1	1
HD5524P-2Q4X-EI	2	2	14	2	1
HD5524-2Q4X-SI	2	/	14	1	1
HD5524-2Q4X-EI	2	2	14	2	1