

S6700 Series 10G Switch Installation - Official Technical Overview & Hardware Datasheet

EXECUTIVE SUMMARY

The Huawei S6700 Series represents a paradigm shift in high-density 10 Gigabit Ethernet switching, engineered as a next-generation platform purpose-built for the rigorous demands of modern data centers, enterprise core networks, and carrier-grade aggregation layers. This series redefines performance benchmarks by delivering up to 48 line-speed 10GE SFP+ ports within a compact, energy-efficient 1RU form factor, enabling the seamless convergence of high-performance computing, cloud services, and massive data throughput .

The S6700 Series is meticulously architected to provide industry-leading switching capacity, comprehensive security policies, and granular Quality of Service (QoS) controls, facilitating the construction of scalable, manageable, and resilient network infrastructures. With support for advanced features such as service port stacking, dual modular power supplies for 1+1 redundancy, and pluggable fan modules for intelligent thermal management, the S6700 ensures unparalleled system availability and operational continuity . This datasheet provides a comprehensive technical overview of the S6700 Series, detailing its hardware architecture, performance specifications, and installation prerequisites, positioning it as the definitive choice for organizations seeking to

future-proof their network investments.



ARCHITECTURE AND CHASSIS DESIGN

The S6700 Series chassis is engineered for maximum density and operational efficiency. The 1RU (43.6 mm high) enclosure is designed to accommodate a high number of 10GE SFP+ ports, offering a maximum of 48 ports on the S6700-48-EI model and 24 ports on the S6700-24-EI model . The physical layout of the chassis is structured to optimize airflow and facilitate ease of maintenance, with all critical components being front-accessible.

PHYSICAL SPECIFICATIONS (COMMON TO ALL MODELS):

Dimensions (H x W x D): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x

16.5 in.)

Empty Chassis Weight: ≤ 5 kg (11.02 lb)

Fully Configured Weight: ≤ 8.5 kg (18.74 lb)

MODEL-SPECIFIC PORT CONFIGURATIONS:

S6700-48-EI:

The front panel features 48 x 10GE SFP+ ports, designed for high-density server access or traffic aggregation. These ports support auto-sensing to 1000 Mbit/s, providing flexibility for diverse connectivity requirements .

S6700-24-EI:

The front panel features 24 x 10GE SFP+ ports, offering a more compact high-performance solution suitable for edge deployments or environments with lower port density requirements .

COMMON FRONT PANEL INTERFACES (BOTH MODELS):

One ETH Management Port: Dedicated 10/100/1000BASE-T out-of-band management port for device configuration and network management connectivity.

One Console Port: RJ-45 console port for local, serial-based configuration,

essential for initial deployment and disaster recovery .

One USB Port (USB 2.0): Facilitates rapid file transfer for system upgrades, configuration deployment, and log storage. Supports USB flash drives up to 128 GB .

HARDWARE FEATURES

POWER SUPPLY CONFIGURATION AND REDUNDANCY:

The S6700 Series supports a highly flexible 1+1 power redundancy architecture. The chassis contains two power module slots (Power Module Slot 1 and Power Module Slot 2), allowing for the installation of a single power module for basic operation or dual power modules for active/standby redundancy . This ensures that the switch remains operational even in the event of a single power supply failure, maximizing network uptime.

AC and DC Power Module Mixing: The S6700 Series supports the simultaneous use of AC and DC power modules in the same chassis starting from software version V200R005C00, offering maximum flexibility for power infrastructure integration .

THERMAL MANAGEMENT AND COOLING:

The S6700 Series employs a forced-air cooling architecture, utilizing two

pluggable fan modules located on the rear panel . The airflow design, which draws cool air from the sides and exhausts hot air from the rear, is optimized for high-density rack deployments, ensuring critical components remain within operational temperature thresholds under full load. The fan modules are hot-swappable, enabling replacement without service interruption.

COMPLIANCE AND STANDARDS

The S6700 Series is designed to meet the most stringent global standards for electromagnetic compatibility (EMC), safety, and manufacturing, ensuring reliable deployment in diverse environments.

EMC Certification: The switch complies with international EMC standards, guaranteeing performance integrity in environments with high electromagnetic interference.

Safety Certification: The platform adheres to rigorous safety standards, ensuring protection for personnel and equipment during installation and operation.

Manufacturing Certification: The S6700 is manufactured in compliance with industry-leading quality and environmental standards.

Service Port Surge Protection: Not Applicable (NA) .

Power Supply Surge Protection: The power supply modules incorporate built-in

surge protection to safeguard the switch against voltage spikes from the power grid .

AC Power Modules: ± 2 kV in differential mode, ± 4 kV in common mode .

DC Power Modules: ± 1 kV in differential mode, ± 2 kV in common mode .

TECHNICAL SPECIFICATIONS

The following table provides a detailed summary of the key technical parameters for the S6700-24-EI and S6700-48-EI models. These specifications are critical for network architects and engineers to ensure the platform meets the specific performance and environmental requirements of their intended deployment.

Parameter	S6700-24-EI Specification	S6700-48-EI Specification
Memory (RAM)	512 MB	512 MB
Flash	64 MB	64 MB
Mean Time Between Failures (MTBF)	34.54 years	33.76 years
Mean Time To Repair (MTTR)	2 hours	2 hours

Availability	> 0.99999	> 0.99999
Switching Capacity (10GE Ports)	240 Gbit/s	480 Gbit/s
Stack Ports	Any 10GE SFP+ ports (Max 8)	Any 10GE SFP+ ports (Max 8)
Redundant Power Supply (RPS)	Not Supported	Not Supported
PoE Support	Not Supported	Not Supported
AC Rated Voltage Range	100 V AC to 240 V AC, 50/60 Hz	100 V AC to 240 V AC, 50/60 Hz
DC Rated Voltage Range	-48 V DC to -60 V DC	-48 V DC to -60 V DC
Maximum Power Consumption (100% Throughput)	153.6 W	240 W
Operating Temperature	-5°C to +50°C (23°F to 122°F)	-5°C to +50°C (23°F to 122°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)	-40°C to +70°C (-40°F to +158°F)
Noise (27 ° C, Sound Power)	< 55 dB(A)	< 55 dB(A)
Relative Humidity	5% to 95%, noncondensing	5% to 95%, noncondensing

Operating Altitude	0-5000 m (0-16404 ft.)	0-5000 m (0-16404 ft.)
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ORDERING INFORMATION AND PART NUMBERS

Accurate identification of the correct hardware is essential for procurement and deployment planning. The following part numbers correspond to the primary S6700 Series chassis.

Part Number (02352768): S6700-24-EI (24-Port 10GE SFP+ Chassis) .

Part Number (02352767): S6700-48-EI (48-Port 10GE SFP+ Chassis) .

ADDITIONAL INSTALLATION NOTES:

Cabinet/Rack Mounting: The S6700 Series switches are installed in a standard 19-inch cabinet or rack. For switches of this depth and weight, Huawei recommends using guide rails (purchased separately) to support the chassis and ensure safe, secure mounting. The provided front mounting brackets are used to secure the switch to the mounting rails .

ESD Protection: An ESD jack is provided on the front panel. Before installing or maintaining the switch, it is mandatory to wear an ESD wrist strap and insert the other end into this ESD jack to prevent electrostatic discharge damage to

sensitive components .

Stacking: The S6700 Series supports service port stacking, allowing multiple switches to be interconnected as a single logical device. Any of the 10GE SFP+ ports can be configured as stack ports, with a maximum of eight physical ports per switch. This feature simplifies management and scales network capacity .

